

CHAPTER 8.4.

**INFECTION WITH BRUCELLA ABORTUS
B. MELITENSIS AND B. SUIIS**

During the 83rd General Session Australia intervened to express its concern with combining the three *Brucella* species into one Code Chapter. During the 82nd General Session, the United States had made a similar intervention and expressed similar concerns. Recognizing that the chapter now combined all three species (which is the root cause for our concern), like Australia, the United States asked the Code Commission to consider adding certain text in the new combined chapter to address these concerns and help clarify intent.

Our main rationale for requesting that clarifying text be inserted into the combined chapter is as follows:

- 1) Irrefutable scientific evidence does not currently exist showing that all species of *Brucella* have the same degree of infectivity in the non-traditional host species of animals which that given *Brucella spp* primarily affects.
- 2) Available serology tests for detection of infection with various *Brucella* species are not necessarily standardized and validated for all species of animals.
- 3) The recommended edits/text presented by the United States provide additional clarity and aligns with the OIE Standards as reflected in the former individual Code Chapters.
- 4) The clarifying language is applied to the livestock species conventionally used for food and fiber (Articles 8.4.4. – 8.4.7. and Article 8.4.12.), namely bovinds, pigs, sheep and goats, and is consistent with the General Provisions under Article 8.4.1, Point 1.

Please note however, that the United States is not making any clarifying recommendations to Articles 8.4.8. (camelids) and 8.4.9. (cervids) because: 1) there is no single established species-specific *Brucella* for these animals; 2) there is no well documented standardized and validated serology tests for use in these species of animals; 3) these species are not “traditional” livestock conventionally used for food and fiber; and 4) most countries do not have a formal Brucellosis program for these species of animals. Also, since Articles 8.4.10 and 8.4.11 address the “herd status” as opposed to “country or zone status” the United States did not insert species-specific *Brucella* text because Point 1) a) in each Article covers the issue of *Brucella* organism specific to the traditional host species of animals by referencing the herd or flock being “*in a country or zone free from infection with Brucella*” which would be *Brucella* organism-host species specific.

We hope these recommended changes are clear as explained in Points 1 through 4 above. We believe they clarify the intent of the chapter, but do not change its substance in any way. The changes are indicated in the Chapter in blue font and double underlined.

Article 8.4.1.

General provisions

- 1) The aim of this chapter is to mitigate the risk of spread of, and the risk to human health from, *Brucella abortus*, *B. melitensis* and *B. suis* in animals.
- 2) For the purpose of this chapter:
 - a) 'Brucella' means *B. abortus*, *B. melitensis* or *B. suis*, excluding vaccine strains.
 - b) 'Animals' means domestic and *captive wild* animal populations of the following categories:
 - i) bovids: this term means cattle (*Bos taurus*, *B. indicus*, *B. frontalis*, *B. javanicus* and *B. grunniens*), bison (*Bison bison* and *B. bonasus*) and water buffalo (*Bubalus bubalis*);
 - ii) Sheep (*Ovis aries*) and goats (*Capra aegagrus*);
 - iii) pigs (*Sus scrofa*);
 - iv) Camelids: this term means dromedary camel (*Camelus dromedarius*), Bactrian camel (*Camelus bactrianus*), llama (*Lama glama*), alpaca (*Lama pacos*), guanaco (*Lama guanicoe*) and vicuna (*Vicugna vicugna*);
 - v) Cervids: this term means roe deer (*Capreolus capreolus*), red deer (*Cervus elaphus elaphus*), wapiti/elk (*C. elaphus canadensis*), sika (*C. nippon*), samba (*C. unicolor unicolor*), rusa (*C. timorensis*), fallow deer (*Dama ~~dama~~ dama*), white-tailed, black-tailed, mule deer (*Odocoileus* spp.) and reindeer/caribou
 - vi) European hare (*Lepus europaeus*).
- 3) For the purpose of the *Terrestrial Code*, a *case* is an *animal* infected with *Brucella*.
- 4) The chapter deals not only with the occurrence of clinical signs caused by *infection* with *Brucella*, but also with the presence of *infection* with *Brucella* in the absence of clinical signs.
- 5) The following defines *infection* with *Brucella*:
 - a) *Brucella* has been isolated from a sample from an *animal*

OR

 - b) positive results to a diagnostic test have been obtained, and there is an epidemiological link to a *case*
- 6) For the purposes of qualification of a country or zone free from *Brucella*, the qualification is specific to the species-specific *Brucella* organism for the traditional host species.
- 7) ~~6)~~ When authorising import or transit of *commodities* listed in this chapter, with the exception of those listed in Article 8.X.2., *Veterinary Authorities* should require the conditions prescribed in this chapter relevant to the *Brucella infection* status of the animal population of the *exporting country, zone, herd or flock*.
- 8) ~~7)~~ Standards for diagnostic tests and vaccines are described in the *Terrestrial Manual*.

Article 8.4.2.

Safe commodities

When authorising import or transit of the following *commodities*, *Veterinary Authorities* should not require any

Brucella-related conditions, regardless of the *Brucella* infection status of the animal population of the *exporting country*:

- 1) skeletal muscle *meat*, brain and spinal cord, digestive tract, thymus, thyroid and parathyroid glands and derived products;
- 2) cured hides and skins;
- 3) gelatine, collagen, tallow and *meat-and-bone meal*.

Article 8.4.3.

Country or zone historically free from infection with *Brucella* in specified animal categories

A country or *zone* may be considered free from *infection* with *Brucella* in specified animal categories when;

- 1) *infection* with *Brucella* in *animals* is a *notifiable disease* in the whole country;
- 2) historical freedom in the relevant animal categories has been demonstrated as described in point 1 of Article 1.4.6.

Article 8.4.4.

Country or zone free from infection with *Brucella* abortus in bovids without vaccination

- 1) To qualify as free from *infection* with *Brucella* abortus in bovids without *vaccination*, a country or *zone* should satisfy the following requirements:
 - a) *infection* with *Brucella* abortus in *animals* is a *notifiable disease* in the whole country;
 - b) no case of *Brucella abortus* has been recorded in bovids for at least the past three years;
 - c) regular testing of all *herds* has been in place for the past three years; and this testing has demonstrated that during this period, *infection* with *Brucella* abortus was not present in at least 99.8% of the *herds* representing at least 99.9% of bovids in the country or *zone*;
 - d) regulatory measures have been implemented for the early detection of *infection* with *Brucella* abortus in bovids, including at least the regular submission of samples from abortion cases to diagnostic laboratories;
 - e) no bovids have been vaccinated against *infection* with *Brucella* abortus for at least the past three years, and no bovids introduced into the country or *zone* have been vaccinated against infection with *Brucella abortus* in the past three years;
 - f) bovids and their genetic materials introduced into the country or *zone* comply with the recommendations in Articles 8.X.13. and; 8.X.15. to 8.X.17.
- 2) To maintain the status as free from *infection* with *Brucella* abortus in bovids without *vaccination*, a country or *zone* should satisfy the following requirements:
 - a) the requirements in points 1a), 1b) and 1d) to 1f) above are met;
 - b) a *surveillance* programme based on regular testing of bovids is in place in the country or *zone* to detect *infection* with *Brucella* abortus in accordance with Article 1.4.4.;
 - c) if the *surveillance* programme described in b) above has not detected *infection* with *Brucella* abortus for two consecutive years, *surveillance* may be maintained in accordance with Article 1.4.5.
- 3) The country or *zone* status of free from *infection* with *Brucella* abortus in bovids without *vaccination* is not affected by the occurrence of *infection* with *Brucella* in other animal categories or *feral* or *wild animals* provided that effective measures have been implemented to prevent transmission of *infection* with *Brucella* to bovids.

Article 8.4.5.

Country or zone free from infection with *Brucella* abortus in bovids with vaccination

- 1) To qualify as free from *infection* with *Brucella* abortus in bovids with *vaccination*, a country or *zone* should satisfy the following requirements:
 - a) *Brucella* infection with *Brucella* abortus in *animals* is a *notifiable disease* in the whole country;

- b) no case of *Brucella abortus* has been recorded in bovids for at least the past three years;
 - c) regular testing of all *herds* has been in place for the past three years; and this testing has demonstrated that during this period, *infection with Brucella abortus* was not present in at least 99.8% of the *herds* representing at least 99.9% of bovids in the country or *zone*;
 - d) regulatory measures have been implemented for the early detection of *infection with Brucella abortus* in bovids, including at least the regular submission of samples from abortion cases to diagnostic *laboratories*;
 - e) *vaccinated* bovids *vaccinated against infection with Brucella abortus* should be permanently identified as such;
 - f) bovids and their genetic materials introduced into the country or *zone* comply with the recommendations in Articles 8.X.13. and; 8.X.15. to 8.X.17.
- 2) To maintain the status as free from *infection with Brucella abortus* in bovids with *vaccination* a country or *zone* should satisfy the following requirements:
- a) the requirements in points 1a), 1b) and 1d) to 1ef) above are met;
 - b) a *surveillance* programme based on regular testing of bovids is in place in the country or *zone* to detect *infection with Brucella abortus* in accordance with Article 1.4.4.;
 - c) if a the *surveillance* programme described in b) above has not detected *infection with Brucella abortus* for two consecutive years, *surveillance* may be maintained in accordance with Article 1.4.5.
- 3) The country or *zone* status of free from *infection with Brucella abortus* in bovids with *vaccination* is not affected by the occurrence of *infection with Brucella* in other animal categories or *feral* or *wild animals* provided that effective measures have been implemented to prevent transmission of *infection with Brucella* to bovids
- 4) The status of a country or *zone* free from *infection with Brucella abortus* in bovids with *vaccination* remains unchanged for a period of three years after *vaccination* has ceased, provided that the requirements in points 1a), 1b) and 1d) to 1f) of Article 8.X.3. are met, at which time this status may be changed to free from *infection with Brucella* in bovids without *vaccination*

Article 8.4.6.

Country or zone free from infection with *Brucella melitensis* in sheep and goats without vaccination

- 1) To qualify as free from *infection with Brucella melitensis* in sheep and goats without *vaccination* a country or *zone* should satisfy the following requirements:
- a) *infection with Brucella melitensis* in *animals* is a *notifiable disease* in the whole country;
 - b) no case of *Brucella melitensis* has been recorded in sheep and goats for at least the past three years;
 - c) regular testing of all *flocks* has been in place for the past three years; and this testing has demonstrated that during this period, *infection with Brucella melitensis* was not present in at least 99.8% of the *flocks* representing at least 99.9% of sheep and goats in the country or *zone*;
 - d) regulatory measures have been implemented for the early detection of *infection with Brucella melitensis* in sheep and goats, including at least the regular submission of samples from abortion cases to diagnostic *laboratories*

- e) no sheep and goats have been vaccinated against *infection* with *Brucella melitensis* for at least the past three years and no sheep and goats introduced into the country or *zone* have been vaccinated against infection with *Brucella melitensis* in the past three years;
 - f) sheep and goats and their genetic materials introduced into the country or *zone* comply with the recommendations in Articles 8.X.13. and 8.X.15. to 8.X.17.;
- 2) To maintain the status as free from *infection* with *Brucella melitensis* in sheep and goats without *vaccination*, a country or *zone* should satisfy the following requirements:
- a) the requirements in points 1a), 1b) and 1d) to 1ef) above are met;
 - b) a *surveillance* programme based on regular testing of sheep and goats is in place in the country or *zone* to detect *infection* with *Brucella melitensis* in accordance with Article 1.4.4.;
 - c) if the *surveillance* programme described in b) above has not detected *infection* with *Brucella melitensis* for two consecutive years, *surveillance* may be maintained in accordance with Article 1.4.5.
- 3) The country or *zone* status of free from *infection* with *Brucella melitensis* in sheep and goats without *vaccination* is not affected by the occurrence of *infection* with *Brucella* in other animal categories or *feral* or *wild animals* provided that effective measures have been implemented to prevent transmission of *infection* with *Brucella* to sheep and goats.

Article 8.4.7.

Country or zone free from infection with *Brucella melitensis* in sheep and goats with vaccination

- 1) To qualify as free from *infection* with *Brucella melitensis* in sheep and goats with *vaccination* a country or *zone* should satisfy the following requirements:
- a) *infection* with *Brucella melitensis* in animals is a *notifiable disease* in the whole country
 - b) no case of *Brucella melitensis* has been recorded in sheep and goats for at least the past three years;
 - c) regular testing of all *flocks* has been in place for the past three years; and this testing has demonstrated that during this period, *infection* with *Brucella melitensis* was not present in at least 99.8% of the *flocks* representing at least 99.9% of sheep and goats in the country or *zone*;
 - d) regulatory measures have been implemented for the early detection of *infection* with *Brucella melitensis* in sheep and goats, including at least the regular submission of samples from abortion cases to diagnostic *laboratories*;
 - e) vaccinated sheep and goats vaccinated against infection with *Brucella melitensis* should be permanently identified as such;
 - f) sheep and goats and their genetic materials introduced into the country or *zone* comply with the recommendations in Articles 8.X.13. and 8.X.15. to 8.X.17.
- 2) To maintain the status as free from *infection* with *Brucella melitensis* in sheep and goats with *vaccination* a country or *zone* should satisfy the following requirements:
- a) the requirements in points 1a), 1b) and 1d) to 1ef) above are met;
 - b) a *surveillance* programme based on regular testing of sheep and goats is in place in the country or

zone to detect *infection* with *Brucella melitensis* in accordance with Article 1.4.4.;

- c) if the *surveillance* programme described in b) above has not detected *infection* with *Brucella melitensis* for two consecutive years, *surveillance* may be maintained in accordance with Article 1.4.5.
- 3) The country or zone status of free from *infection* with *Brucella melitensis* in sheep and goats with *vaccination* is not affected by the occurrence of *infection* with *Brucella* in other animal categories or *feral* or *wild animals* provided that effective measures have been implemented to prevent transmission of *infection* with *Brucella* to sheep and goats.
 - 4) The status of a country or zone free from *infection* with *Brucella melitensis* in sheep and goats with *vaccination* remains unchanged for a period of three years after *vaccination* has ceased, provided that the requirements in points 1a), 1b) and 1d) to 1f) of Article 8.X.5. are met, at which time this status may be changed to free from *infection* with *Brucella* in sheep and goats without *vaccination*

Article 8.4.8.

Country or zone free from infection with *Brucella* in camelids

- 1) To qualify as free from *infection* with *Brucella* in camelids, a country or zone should satisfy the following requirements:
 - a) *infection* with *Brucella* in animals is a *notifiable disease* in the whole country
 - b) no case has been recorded in camelids for at least the past three years;
 - c) regular testing of all *herds* has been in place for the past three years; and this testing has demonstrated that during this period, *infection* with *Brucella* was not present in at least 99.8% of the *herds* representing at least 99.9% of camelids in the country or zone;
 - d) regulatory measures have been implemented for the early detection of *infection* with *Brucella* in camelids, including at least the regular submission of samples of abortion cases to diagnostic laboratories;
 - e) no camelids have been vaccinated against *infection* with *Brucella* for at least the past three years and no camelids introduced into the country or zone have been vaccinated in the past three years;
 - f) camelids and their genetic materials introduced into the country or zone comply with the recommendations in Articles 8.X.13. and; 8.X.15. to 8.X.17.;
- 2) To maintain the status as free from *infection* with *Brucella* in camelids, a country or zone should satisfy the following requirements:
 - a) the requirements in points 1a), 1b) and 1d) to 1f) above are met;
 - b) a *surveillance* programme based on regular testing of camelids is in place in the country or zone to detect *infection* with *Brucella* in accordance with Article 1.4.4.;
 - c) if the *surveillance* programme described in b) above has not detected *infection* with *Brucella* for two consecutive years, *surveillance* may be maintained in accordance with Article 1.4.5.
- 3) The country or zone status of free from *infection* with *Brucella* in camelids is not affected by the occurrence of *infection* with *Brucella* in other animal categories or *feral* or *wild animals* provided that effective measures have been implemented to prevent transmission of *infection* with *Brucella* to

camelids.

Article 8.4.9.

Country or zone free from infection with *Brucella* in cervids

- 1) To qualify as free from *infection* with *Brucella* in cervids, a country or *zone* should satisfy the following requirements:
 - a) *infection* with *Brucella* in animals is a *notifiable disease* in the whole country;
 - b) no *case* has been recorded in cervids for at least the past three years;
 - c) regular testing of all *herds* has been in place for the past three years; and this testing has demonstrated that during this period, *infection* with *Brucella* was not present in at least 99.8% of the *herds* representing at least 99.9% of cervids in the country or *zone*;
 - d) regulatory measures have been implemented for the early detection of *infection* with *Brucella* in cervids, including at least the regular submission of samples from abortion cases to diagnostic laboratories;
 - e) no cervids have been vaccinated against *infection* with *Brucella* for at least the past three years and no cervids introduced into the country or *zone* have been vaccinated in the past three years;
 - f) cervids and their genetic materials introduced into the country or *zone* comply with the recommendations in Articles 8.X.13. and, 8.X.15. to 8.X.17.
- 2) To maintain the status as free from *infection* with *Brucella* in cervids, a country or *zone* should satisfy the following requirements:
 - a) the requirements in points 1a), 1b) and 1d) to 1f) above are met;
 - b) a *surveillance* programme based on regular testing of cervids is in place in the country or *zone* to detect *infection* with *Brucella* in accordance with Article 1.4.4.;
 - c) if the *surveillance* programme described in b) above has not detected *infection* with *Brucella* for two consecutive years, *surveillance* may be maintained in accordance with Article 1.4.5.
- 3) The country or *zone* free status of free from *infection* with *Brucella* in cervids is not affected by the occurrence of *infection* with *Brucella* in other animal categories or *feral* or *wild animals* provided that effective measures have been implemented to prevent transmission of *infection* with *Brucella* to cervids.

Article 8.4.10.

Herd or flock free from infection with *Brucella* in bovids, sheep and goats, camelids or cervids without vaccination

- 1) To qualify as free from *infection* with *Brucella* without *vaccination*, a *herd* or *flock* of bovids, sheep and goats, camelids or cervids should satisfy the following requirements:
 - a) the *herd* or *flock* is in a country or *zone* free from *infection* with *Brucella* without *vaccination* in the relevant animal category and is certified free without *vaccination* by the *Veterinary Authority*;

OR

- b) the *herd* or *flock* is in a country or *zone* free from *infection* with *Brucella* with *vaccination* in the relevant animal category and is certified free without *vaccination* by the *Veterinary Authority*; and no *animal* of the *herd* or *flock* has been vaccinated in the past three years;

OR

- c) the *herd* or *flock* met the following conditions:
- i) *infection* with *Brucella* in *animals* is a *notifiable disease* in the whole country;
 - ii) no *animal* of the relevant category of the *herd* or *flock* has been vaccinated in the past three years;
 - iii) no *case* has been detected in the *herd* or *flock* for at least the past year;
 - iv) *animals* showing clinical signs consistent with *infection* with *Brucella* such as have been subjected to the necessary diagnostic tests with negative results;
 - v) for at least the past year there has been no evidence of *infection* with *Brucella* in other *herds* or *flocks* of the same *establishment*, or measures have been implemented to prevent any transmission of the *infection* with *Brucella* from these other-*herds* or *flocks*;
 - vi) two tests have been performed with negative results on all sexually mature *animals* present in the *herd* at the time of testing, the first test being performed not before three months after the *slaughter* of the last *case* and the second test at an interval of more than six and less than 12 months.

- 2) To maintain the free status, the following conditions should be met:

- a) the requirements in points 1a) or 1b) or 1c) i) to v) above are met;
- b) regular tests, at a frequency depending on the prevalence of *herd* or *flock infection* in the country or *zone*, demonstrate the continuing absence of *infection* with *Brucella*;
- c) *animals* of the relevant category introduced into the *herd* or *flock* are accompanied by a certificate from an *Official Veterinarian* attesting that they come from:
 - i) a country or *zone* free from *infection* with *Brucella* in the relevant category without *vaccination*;

OR

- ii) a country or *zone* free from *infection* with *Brucella* with *vaccination* and the *animals* of the relevant category have not been vaccinated in the past three years;

OR

- iii) a *herd* or *flock* free from *infection* with *Brucella* with or without *vaccination*, and that the *animals* have not been vaccinated in the past three years and were tested for *infection* with *Brucella* within 30 days prior to shipment with negative results; in the case of post-parturient females the test is carried out at least 30 days after giving the birth. This test is not required for sexually immature *animals*

Article 8.4.11.

Herd or flock free from infection with *Brucella* in bovids, sheep and goats with vaccination

- 1) To qualify as free from *infection* with *Brucella* with *vaccination*, a *herd* of bovids or *flock* of sheep and

goats should satisfy the following requirements:

- a) the *herd or flock* is in a country or *zone* free from *infection* with *Brucella* with *vaccination* for the relevant animal category and is certified free with *vaccination* by the *Veterinary Authority*;

OR

- b) the *herd or flock* met the following conditions:

- i) *infection* with *Brucella* in *animals* is a *notifiable disease* in the whole country;
- ii) vaccinated *animals* of the relevant categories are permanently identified as such;
- iii) no *case* has been detected in the *herd or flock* for at least the past year;
- iv) *animals* showing clinical signs consistent with *infection* with *Brucella* such as abortions have been subjected to the necessary diagnostic tests with negative results;
- v) for at least the past year there has been no evidence of *infection* with *Brucella* in other *herds or flocks* of the same *establishment*, or measures have been implemented to prevent any transmission of the *infection* with *Brucella* from these other *herds or flocks*;
- vi) two tests have been performed with negative results on all sexually mature *animals* present in the *herd* at the time of testing, the first test being performed not before three months after the *slaughter* of the last *case* and the second test at an interval of more than six and less than 12 months.

- 2) To maintain the free status, the following conditions should be met:

- a) the requirements in points 1 a) or 1b) i) to v) above are met;
- b) regular tests, at a frequency depending on the prevalence of *herd or flock infection* in the country or *zone*, demonstrate the continuing absence of *infection* with *Brucella*;
- c) *animals* of the relevant category introduced into the *herd or flock* should be accompanied by a certificate from an *Official Veterinarian* attesting that they come from either:
- i) a country or *zone* free from *infection* with *Brucella* in the relevant category with or without *vaccination*;

OR

- ii) a *herd or flock* free from *infection* with *Brucella* with or without *vaccination*, and that the *animals* were tested for *infection* with *Brucella* within 30 days prior to shipment with negative results; in the case of post-parturient females, the test is carried out at least 30 days after giving birth. This test is not required for sexually immature *animals* or vaccinated *animals* less than 18 months of age.

Article 8.4.12.

Herd free from infection with *Brucella suis* in pigs

- 1) To qualify as free from *infection* with *Brucella suis*, a *herd* of pigs should satisfy the following requirements:

- a) *infection* with *Brucella suis* in *animals* is a *notifiable disease* in the whole country;

- b) no case of *Brucella suis* has been detected in the *herd* for at least the past three years;
 - c) *animals* showing clinical signs consistent with *infection* with *Brucella suis* such as abortions or orchitis have been subjected to the necessary diagnostic tests with negative results;
 - d) no pigs of the *herd* have been vaccinated against infection with *Brucella suis* for at least the past three years and no pigs introduced into the *herd* have been vaccinated against infection with *Brucella suis* in the past three years;
 - e) for at least the past three years, there has been no evidence of *infection* with *Brucella suis* in other *herds* or *flocks* of the same *establishment*, or measures have been implemented to prevent any transmission of *infection* with *Brucella suis* from these other *herds* or *flocks*.
- 2) To maintain the free status, the following conditions should be met:
- a) the requirements in point 1) above are met;
 - b) *animals* introduced into the *herd* are accompanied by a certificate from an *Official Veterinarian* attesting that:
 - i) they come from a *herd* free from *infection* with *Brucella suis*;

OR

 - ii) they come from a *herd* in which a statistically valid sample of the breeding pigs, selected in accordance with the provisions of Article 1.4.4., was tested within 30 days prior to shipment, demonstrating the absence of *infection* with *Brucella suis*;

OR

 - iii) they were tested within 30 days prior to shipment with negative results.

Article 8.4.13.

Recovery of the *Brucella* infection free status in a country or a zone

Should a *case* of *infection* with *Brucella* in one or more animal categories occur in a free country or *zone* as described in Articles 8.X.3. to 8.X.8., the free status may be recovered once the following requirements are met:

- 1) all infected *animals* of the relevant category have been slaughtered or destroyed as soon as *infection* with *Brucella* is confirmed;
- 2) an epidemiological investigation has been performed within 60 days of confirmation of *infection* with *Brucella* in the *herd* or *flock*, aiming at identifying the likely source and the distribution of the *infection*, and shows that the number of *outbreaks* is limited and all are epidemiologically linked;
- 3) in the index *herd* or *flock* and *herds* or *flocks* identified by the epidemiological investigation:
 - a) whole *herd* or *flock* depopulation has been practised; or,
 - b) whole *herd* or *flock* depopulation has not been practised and all remaining sexually mature *animals* except castrated males have been tested, with negative results, on three occasions, at an interval of not less than two months, then a fourth test six months later and a final fifth test a year later;

- c) no *animals* are moved from the *herds* or *flocks* except directly for *slaughter* until the processes in point a) or b) above are completed;
- 4) cleansing and *disinfection* procedures have been applied at the end of the *slaughter* process and before new *animals* are introduced.

If these requirements have not been met, the status is not recovered and Articles 8.X.3. to 8.X.8. apply as relevant.

Article 8.4.14.

Recommendations for the importation of bovids, sheep and goats, camelids or cervids for breeding or rearing

Veterinary Authorities of importing countries should require the presentation of an *international veterinary certificate* attesting that the animals of the relevant category:

- 1) showed no clinical signs of *infection* with *Brucella* on the day of shipment;
- 2) originate from:
 - a) a country or *zone* free from *infection* with *Brucella* as relevant;

OR

 - b) a *herd* or *flock* free from *infection* with *Brucella* and all sexually mature *animals* were tested for *infection* with *Brucella* with negative results within 30 days prior to shipment.

OR

 - c) a *herd* or *flock* not qualified free from *infection* with *Brucella*:
 - i) in which no *case* has been reported during the year prior to shipment;
 - ii) the *animals* were isolated for 30 days prior to shipment and all *animals* in isolation were tested for *infection* with *Brucella* within that period with negative results in the case of post-parturient females, the test was carried out at least 30 days after giving birth.

Article 8.4.15.

Recommendations for the importation of pigs for breeding or rearing

Veterinary Authorities of importing countries should require the presentation of an *international veterinary certificate* attesting that the pigs:

- 1) showed no clinical signs of *infection* with *Brucella* on the day of shipment;
- 2) either:
 - a) originate from a *herd* free from *infection* with *Brucella*;

OR

 - b) originate from a *herd* in which a statistically valid sample of the breeding pigs, selected in accordance with the provisions of Article 1.4.4., was tested within 30 days prior to shipment, demonstrating the absence of *infection* with *Brucella*;

OR

- c) were isolated for 30 days prior to shipment and all pigs in isolation were tested for *infection* with *Brucella* within that period with negative results.

Article 8.4.16.

Recommendations for the importation of animals for slaughter

Veterinary Authorities of importing countries should require the presentation of an *international veterinary certificate* attesting that the *animals*:

- 1) showed no clinical signs of *infection* with *Brucella* on the day of shipment;
- 2) originate from a country, *zone*, *herd* or *flock* free from *infection* with *Brucella*

OR

- 3) are not being culled as part of an eradication programme against *Brucella infection* and in the case of sexually mature bovids, sheep and goats, camelids or cervids, were tested for *infection* with *Brucella* with negative results within 30 days prior to shipment

Article 8.4.17.

Recommendations for the importation of semen

Veterinary Authorities of importing countries should require the presentation of an *international veterinary certificate* attesting that:

- 1) the donor animals showed no clinical signs of *infection* with *Brucella* on the day of collection of the semen;
- 2) the donor animals were not vaccinated against *infection* with *Brucella* and either:
 - a) were kept in an *artificial insemination centre* complying with the provisions of Chapter 4.5. and the semen was collected and processed in accordance with Chapter 4.6;

OR

- b) were kept in a *herd* or *flock* free from *infection* with *Brucella* and tested every six for *infection* with *Brucella* with negative results, and the semen was collected, processed and stored in accordance with the provisions of Articles 4.5.3. to 4.5.5. and Articles 4.6.5. to 4.6.7.

Article 8.4.18.

Recommendations for the importation of embryos and oocytes

Veterinary Authorities of importing countries should require the presentation of an *international veterinary certificate* attesting that:

- 1) the donor animals showed no clinical signs of *infection* with *Brucella* on the day of collection;
 - 2) the donor animals were not vaccinated against *infection* with *Brucella* in the past three years and either:
 - a) were kept in a country or *zone* free from *infection* with *Brucella*, as relevant;
- OR
- b) were kept in a *herd* or *flock* free from *infection* with *Brucella* and tested every six months for *infection* with *Brucella* with negative results;

- 3) the embryos and oocytes were collected, processed and stored in accordance with Chapters 4.7. to 4.9.

Article 8.4.19.

Recommendations for the importation of fresh meat and meat products other than mentioned in Article 8.X.2.

Veterinary Authorities of importing countries should require the presentation of an *international veterinary certificate* attesting that the *meat* and *meat products* come from *animals*:

- 1) which have been subjected to ante and post-mortem inspections as described in Chapter 6.2.;
- 2) which:
 - a) originate from a country or *zone* free from *infection* with *Brucella*, as relevant;

OR

 - b) originate from a *herd* or *flock* free from *infection* with *Brucella*;

OR

 - c) have not been culled as part of an eradication programme against *infection* with *Brucella*

Article 8.4.20.

Recommendations for the importation of milk and milk products

Veterinary Authorities of importing countries should require the presentation of an *international veterinary certificate* attesting that the *milk* or the *milk products*:

- 1) have been derived from animals in a country, *zone*, *herd* or *flock* free from *infection* with *Brucella* as relevant;
- OR
- 2) were subjected to pasteurisation or any combination of control measures with equivalent performance as described in the Codex Alimentarius Code of Hygienic Practice for Milk and Milk Products.

Article 8.4.21.

Recommendations for importation of wool and hair

Veterinary Authorities should require the presentation of an *international veterinary certificate* attesting that these products:

- 1) have not been derived from *animals* culled as part of an eradication programme against *infection* with *Brucella*;
- OR
- 2) have been processed to ensure the destruction of *Brucella*.
