

CHAPTER 8.2.

INFECTION WITH AUJESZKY'S DISEASE VIRUS

Article 8.2.1.

General provisions

Pigs are the natural host for Aujeszky's disease (AD) virus, although it can infect cattle, sheep, cats, dogs and rats causing fatal disease. The definition of pig includes all varieties of *Sus scrofa*, both domestic and *wild*.

For the purposes of the *Terrestrial Code*, AD is defined as an *infection* of domestic pigs or *captive wild* pigs, which are under direct human supervision or control.

For the purposes of this chapter, a distinction is made between domestic pig and *captive wild* pig populations on the one hand, and *wild* pig and *feral* pig populations on the other hand.

A Member Country should not impose trade bans in response to a *notification of infection* with AD virus in *wild* and *feral* pigs in accordance with Article 1.1.3.

When authorising import or transit of the *commodities* covered in the chapter, with the exception of those listed in Article 8.2.3., *Veterinary Authorities* should require the conditions prescribed in this chapter relevant to the AD status of the *exporting country or zone*.

Standards for diagnostic tests and vaccines are described in the *Terrestrial Manual*.

Article 8.2.2.

Determination of the AD status of a country or zone

The AD free or provisionally free status of a country or *zone* can only be determined after considering the following criteria, as applicable:

- 1) AD is notifiable in the whole country, and all clinical signs suggestive of AD are subjected to field and *laboratory* investigations;
- 2) an ongoing awareness programme is in place to encourage reporting of all cases suggestive of AD;
- 3) the *Veterinary Authority* has current knowledge of, and authority over, all domestic and *captive wild* pig *establishments* in the country or *zone*;
- 4) the *Veterinary Authority* has current knowledge about the population and habitat of *wild* and *feral* pigs in the country or *zone*;
- 5) appropriate *surveillance*, capable of detecting the presence of *infection* even in the absence of clinical signs, is in place; this may be achieved through a *surveillance* programme in accordance with Chapter 1.4.

Article 8.2.3.

Safe commodities

When authorising import or transit of the following *commodities* and any products made from these, *Veterinary Authorities* should not require any AD-related conditions, regardless of the AD status of the *exporting country or zone*:

- 1) *fresh meat* of domestic and *wild* pigs not containing offal (head, and thoracic and abdominal viscera);
- 2) *meat products* of domestic and *wild* pigs not containing offal (head, and thoracic and abdominal viscera);
- 3) products of animal origin not containing offal (head, and thoracic and abdominal viscera).

Article 8.2.4.

AD free country or zone

1. Qualification

- a) A country or *zone* may be considered free from the disease without formally applying a specific *surveillance* programme (historical freedom) if the disease has not been reported for at least 25 years, and if for at least the past 10 years:
 - i) it has been a *notifiable disease*;
 - ii) an *early warning system* has been in place;
 - iii) measures to prevent the introduction of the AD virus into the country or *zone* have been in place;
 - iv) no *vaccination* against the disease has been carried out;
 - v) *infection* is not known to be established in *wild* and *feral* pigs, or appropriate measures have been implemented to prevent any transmission of the AD virus from *wild* and *feral* pigs to domestic and *captive wild* pigs.
- b) A country or *zone* which does not meet the conditions of the above paragraph may be considered free from AD when:
 - i) animal health regulations to control the movement of *commodities* with the exception of those listed in Article 8.2.3. in order to prevent the introduction of *infection* into the *establishments* of the country or *zone* have been in place for at least two years;
 - ii) *vaccination* against AD has been banned for all domestic and *captive wild* pigs in the country or *zone* for at least two years unless there are means, validated to OIE standards (Chapter 3.1.2. of the *Terrestrial Manual*), of distinguishing between vaccinated and infected pigs;
 - iii) if AD has never been reported in the country or *zone*, serological surveys, with negative results, have been conducted on a representative sample of all pig *establishments* in accordance with the recommendations in Chapter 1.4. at an acceptable level of confidence, no more than three years prior to qualification; the serological surveys should be directed at the detection of antibodies to the whole virus, and based on the breeding pig population or, for *establishments* that contain no breeding pigs, on a comparable number of fattening pigs; or
 - iv) if AD has been reported in the country or *zone*, a *surveillance* and control programme has been in place to detect every infected *establishment* and eradicate AD from it; the *surveillance* programme should be carried out in accordance with the recommendations in Chapter 1.4. and demonstrate that no *establishments* within the country or *zone* have had any clinical, virological or serological evidence of AD for at least two years.

In countries or *zones* with *wild* and *feral* pigs, measures should be implemented to prevent any transmission of the AD virus from *wild* and *feral* pigs to domestic and *captive wild* pigs.

2. Maintenance of free status

In order to maintain its free status, a country or *zone* should comply with the following requirements:

- a) periodic serological surveys directed at the detection of antibodies to the whole AD virus should be carried out on a statistically significant number of breeding pigs in accordance with the recommendations in Chapter 1.4.;
- b) the importation of the *commodities* with the exception of those listed in Article 8.2.3. into the country or *zone* is carried out in accordance with the import conditions contained in the relevant articles of the present chapter;
- c) the ban on AD *vaccination* remains in force;
- d) appropriate measures aimed at preventing the transmission of the AD virus from *wild* and *feral* pigs to domestic and *captive wild* pigs remain in force.

3. Recovery of free status

Should an AD *outbreak* occur in an *establishment* of a free country or *zone*, the status of the country or *zone* may be restored if either:

- a) all the pigs in the infected *epidemiological units* have been slaughtered; and, during and after the application of this measure, an epidemiological investigation including clinical examination, and serological or virological testing has been carried out in all pig *establishments* which have been directly or indirectly in contact with the infected *establishment* and in all pig *establishments* located within a prescribed radius from the infected *epidemiological units*, demonstrating that these *establishments* are not infected; or

- b) *vaccination* with gE- deleted vaccines has been applied and:
- i) a serological testing procedure (differential ELISA) has been implemented in the *establishments* where *vaccination* has been applied to demonstrate the absence of *infection*;
 - ii) the movement of pigs from these *establishments* has been banned, except for immediate *slaughter*, until the above procedure has demonstrated the absence of *infection*;
 - iii) during and after the application of the measures described in points (i) to (ii) above, a thorough epidemiological investigation including clinical examination and serological or virological testing has been carried out in all pig *establishments* which have been directly or indirectly in contact with the infected *establishment* and in all pig *establishments* located within a prescribed radius from the *outbreak*, demonstrating that these *establishments* are not infected.

Article 8.2.5.

AD provisionally free country or zone1. Qualification

A country or *zone* may be considered as provisionally free from AD if the following conditions are complied with:

- a) animal health regulations to control the movement of *commodities* with the exception of those listed in Article 8.2.3. in order to prevent the introduction of *infection* into the *establishments* of the country or *zone* have been in place for at least two years;
- b) if AD has never been reported in the country or *zone*, a serological survey, with negative results, has been conducted on a representative sample of all pig *establishments* in accordance with the recommendations in Chapter 1.4. (but not at an acceptable level of confidence); the serological survey should be directed at the detection of antibodies to the whole virus, and based on the breeding pig population or, for *establishments* that contain no breeding pigs, on a comparable number of fattening pigs; or
- c) if AD has been reported in the country or *zone*, a *surveillance* and control programme has been in place to detect infected *establishments* and eradicate AD from these *establishments*, the *herd* prevalence rate in the country or *zone* has not exceeded 1% for at least three years (the sampling procedure described in point 1(e) of the definition of 'AD free establishment' should be applied within the *establishments* of the country or *zone*), and at least 90% of the *establishments* in the country or *zone* are qualified free;
- d) in countries or *zones* with *wild* and *feral* pigs, appropriate measures should be taken to prevent any transmission of the AD virus between *wild* and *feral* pigs and domestic and *captive wild* pigs.

2. Maintenance of provisionally free status

In order to maintain its provisionally free status, a country or *zone* should comply with the following requirements:

- a) the measures described in points 1(b) and 1(d) above should be continued;
- b) the percentage of infected *establishments* remains $\leq 1\%$;
- c) the importation of the *commodities* with the exception of those listed in Article 8.2.3. into the country or *zone* is carried out in accordance with the import conditions contained in the relevant articles of the present chapter.

3. Recovery of provisionally free status

Should the percentage of infected *establishments* exceed 1% in a provisionally free country or *zone*, the status of the country or *zone* is cancelled and may be restored only once the percentage of infected *establishments* has remained $\leq 1\%$ for at least six months, and this result is confirmed by a serological survey conducted in accordance with point 1(c) above.

Article 8.2.6.

AD infected country or zone

For the purposes of this chapter, countries and *zones* which do not fulfil the conditions to be considered free or provisionally free of AD should be considered as infected.

Article 8.2.7.

AD free establishment

1. Qualification

To qualify as free from AD, an *establishment* should satisfy the following conditions:

- a) it is under the control of the *Veterinary Authority*;
- b) no clinical, virological or serological evidence of AD has been found for at least one year;
- c) the introduction of pigs, semen, oocytes and embryos into the *establishment* is carried out in accordance with the import conditions for these *commodities* contained in the relevant articles of the present chapter;
- d) *vaccination* against AD has not been carried out in the *establishment* for at least 12 months, and any previously vaccinated pigs are free from gE antibodies;
- e) a representative sample of breeding pigs from the *establishment* has been subjected, with negative results, to serological tests to the whole AD virus, applying a sampling procedure set out in accordance with the recommendations in Chapter 1.4.; these tests should have been carried out on two occasions, at an interval of two months; for *establishments* that contain no breeding pigs, the tests should be carried out only once on a comparable number of fattening or weaning pigs;
- f) a *surveillance* and control programme has been in place to detect infected *establishments* located within a prescribed radius from the *establishment* and no *establishment* is known to be infected within this *zone*.

2. Maintenance of free status

For *establishments* located in an infected country or *zone*, the testing procedure described in point 1(e) above should be carried out every four months.

For *establishments* located in a provisionally free country or *zone*, the testing procedure described in point 1(e) above should be carried out every year.

3. Recovery of free status

Should a free *establishment* become infected, or should an *outbreak* occur within a prescribed radius from a free *establishment*, the free status of the *establishment* should be suspended until the following conditions are met:

- a) in the infected *establishment*:
 - i) all the pigs in the *establishment* have been slaughtered; or
 - ii) at least 30 days after removal of all infected animals, all breeding animals have been subjected to a serological test to the whole AD virus, with negative results, on two occasions, at an interval of 2 months;
- b) in other *establishments* located within the prescribed radius: a number of breeding pigs from each *establishment* has been subjected, with negative results, to serological tests to the whole AD virus (non-vaccinated *establishments*) or to gE antibodies (vaccinated *establishments*), applying the sampling procedure described in point 1(e) above.

Article 8.2.8.

Recommendations for importation from AD free countries or zones

For domestic and captive wild pigs

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

- 1) showed no clinical sign of AD on the day of shipment;
- 2) come from an *establishment* located in an AD free country or *zone*;
- 3) have not been vaccinated against AD.

Article 8.2.9.

Recommendations for importation from AD provisionally free countries or zones

For domestic and captive wild pigs for breeding or rearing

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

- 1) showed no clinical sign of AD on the day of shipment;

- 2) have been kept exclusively in AD free *establishments* since birth;
- 3) have not been vaccinated against AD;
- 4) were subjected to a serological test to the whole AD virus, with negative results, within 15 days prior to shipment.

Article 8.2.10.

Recommendations for importation from AD infected countries or zones

For domestic and captive wild pigs for breeding or rearing

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

- 1) showed no clinical sign of AD on the day of shipment;
- 2) were kept exclusively in AD free *establishments* since birth;
- 3) have not been vaccinated against AD;
- 4) were isolated in the *establishment* of origin or a *quarantine station*, and were subjected to a serological test to the whole AD virus, with negative results, on two occasions, at an interval of not less than 30 days between each test, the second test being performed during the 15 days prior to shipment.

Article 8.2.11.

Recommendations for importation from AD provisionally free countries or zones or AD infected countries or zones

For domestic and captive wild pigs for slaughter

The pigs should be transported directly from the *place of shipment* to the *slaughterhouse/abattoir* from immediate *slaughter*.

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

- 1) a *surveillance* and control programme is in place in the country or *zone* to detect infected *establishments* and eradicate AD;
- 2) the animals:
 - a) are not being eliminated as part of an *eradication* programme;
 - b) showed no clinical sign of AD on the day of shipment; and
 - i) have been kept exclusively in AD free *establishments* since birth; or
 - ii) have been vaccinated against AD at least 15 days prior to shipment.

Article 8.2.12.

Recommendations for importation from AD free countries or zones

For wild and feral swine

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

- 1) showed no clinical sign of AD on the day of shipment;
- 2) were captured in an AD free country or *zone*;
- 3) have not been vaccinated against the disease;
- 4) were isolated in a *quarantine station*, and were subjected to a serological test to the whole AD virus, with negative results, on two occasions, at an interval of not less than 30 days between each test, the second test being performed during the 15 days prior to shipment.

Article 8.2.13.

Recommendations for importation from AD free countries or zones

For semen of pigs

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

- 1) the donor animals:
 - a) showed no clinical sign of AD on the day of collection of the semen;
 - b) were kept in an *establishment* or *artificial insemination centre* located in an AD free country or *zone* at the time of semen collection;
- 2) the semen was collected, processed and stored in accordance with Chapters 4.6. and 4.7.

Article 8.2.14.

Recommendations for importation from AD provisionally free countries or zones

For semen of pigs

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

- 1) the donor animals:
 - a) have been kept for at least four months prior to semen collection in an *artificial insemination centre* which has the status of AD free *establishment*, and where all boars are subjected to a serological test to the whole AD virus, with negative results, every four months;
 - b) showed no clinical sign of AD on the day of collection;
- 2) the semen was collected, processed and stored in accordance with Chapters 4.6. and 4.7.

Article 8.2.15.

Recommendations for importation from AD infected countries or zones

For semen of pigs

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

- 1) the donor animals:
 - a) were kept in an AD free *establishment* for at least six months prior to entering the *artificial insemination centre*;
 - b) have been kept for at least four months prior to semen collection in the *artificial insemination centre* which has the status of AD free *establishment*, and where all boars are subjected to a serological test to the whole AD virus, with negative results, every four months;
 - c) were subjected to a serological test to the whole AD virus, with negative results, within 10 days prior to or 21 days after semen collection;
 - d) showed no clinical sign of AD on the day of collection;
- 2) the semen was collected, processed and stored in accordance with Chapters 4.6. and 4.7.

Article 8.2.16.

Recommendations for importation from AD free countries or zones

For *in vivo* derived embryos of pigs

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

- 1) the donor females:
 - a) showed no clinical sign of AD on the day of collection of the embryos;
 - b) were kept in an *establishment* located in an AD free country or *zone* prior to collection;
- 2) the embryos were collected, processed and stored in accordance with Chapters 4.8. and 4.10., as relevant.

Article 8.2.17.

Recommendations for importation from AD provisionally free countries or zones

For *in vivo* derived embryos of pigs

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

- 1) the donor females:
 - a) showed no clinical sign of AD on the day of collection of the embryos;
 - b) were kept in an AD free *establishment* for at least three months prior to collection;
- 2) the embryos were collected, processed and stored in accordance with Chapters 4.8. and 4.10., as relevant.

Article 8.2.18.

Recommendations for importation from AD infected countries or zones

For *in vivo* derived embryos of pigs

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

- 1) the donor females:
 - a) showed no clinical sign of AD on the day of collection of the embryos;
 - b) were kept in an AD free *establishment* for at least three months prior to collection;
 - c) were subjected to a serological test to the whole AD virus, with negative results, within ten days prior to collection;
- 2) the embryos were collected, processed and stored in accordance with Chapters 4.8. and 4.10., as relevant.

Article 8.2.19.

Recommendations for importation from AD free countries or zones

For offal (head, and thoracic and abdominal viscera) of pigs or products containing pig offal

Veterinary Authorities should require the presentation of an *international veterinary certificate* attesting that the entire consignment of offal or products containing pig offal comes from animals which come from *establishments* located in an AD free country or zone.

Article 8.2.20.

Recommendations for importation from AD provisionally free countries or zones or from AD infected countries or zones

For offal (head, and thoracic and abdominal viscera) of pigs

Veterinary Authorities should require the presentation of an *international veterinary certificate* attesting that the entire consignment of offal comes from animals:

- 1) which have been kept in an AD free *establishment* since birth;
- 2) which have not been in contact with animals from *establishments* not considered free from AD during their transport to the approved *slaughterhouse/abattoir* and therein.

Article 8.2.21.

Recommendations for importation from AD provisionally free countries or zones or from AD infected countries or zones

For products containing pig offal (head, and thoracic and abdominal viscera)

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

- 1) either the entire consignment of offal used to prepare the products complied with the conditions referred to in Article 8.2.20.; or
- 2) the products have been processed to ensure the destruction of the AD virus; and
- 3) the necessary precautions were taken after processing to avoid contact of the products with any source of AD virus.

NB: FIRST ADOPTED IN 1986; MOST RECENT UPDATE ADOPTED IN 2012.