

## CHAPTER 8.14.

# INFECTION WITH *Trichinella* SPP.

### Article 8.14.1.

#### General provisions

Trichinellosis is a widely distributed *zoonosis* caused by eating raw or undercooked *meat* from *Trichinella* infected food-producing *animals* or *wildlife*. Given that clinical signs of trichinellosis are not generally recognised in *animals*, the importance of trichinellosis lies exclusively in the *risk* posed to humans and costs of control in *slaughter* populations.

The adult parasite and the larval forms live in the small intestine and muscles (respectively) of many mammalian, avian and reptile host species. Within the genus *Trichinella*, twelve genotypes have been identified, eight of which have been designated as species. There is geographical variation amongst the genotypes.

Prevention of *infection* in susceptible species of domestic *animals* intended for human consumption relies on the prevention of exposure of those *animals* to the *meat* and of *Trichinella* infected *animals*. This includes consumption of food waste of domestic animal origin, rodents and *wildlife*.

*Meat* and *meat products* derived from *wildlife* should be considered a potential source of infection for humans. Therefore untested *meat* and *meat products* of *wildlife* may pose a public health *risk*.

For the purposes of the *Terrestrial Code*, *Trichinella infection* is defined as an *infection* of suids or equids by parasites of the genus *Trichinella*.

This chapter provides recommendations for on-farm prevention of *Trichinella infection* in domestic pigs (*Sus scrofa domestica*), and safe trade of *meat* and *meat products* derived from suids and equids. This chapter should be read in conjunction with the Codex Alimentarius Code of Hygienic Practice for Meat (CAC/RCP 58-2005).

Methods for the detection of *Trichinella infection* in pigs and other animal species include direct demonstration of *Trichinella* larvae in muscle samples. Demonstration of the presence of *Trichinella*-specific circulating antibodies using a validated serological test may be useful for epidemiological purposes.

When authorising the import or transit of the *commodities* covered in this chapter, with the exception of those listed in Article 8.14.2., *Veterinary Authorities* should apply the recommendations in this chapter.

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

### Article 8.14.2.

#### Safe commodities

When authorising the import or transit of the following *commodities*, *Veterinary Authorities* should not require any *Trichinella* related conditions, regardless of the status of the animal population of the *exporting country* or *zone*:

- 1) hides, skins, hair and bristles;
- 2) semen, embryos and oocytes.

### Article 8.14.3.

#### Measures to prevent infection in domestic pig herds kept under controlled management conditions

- 1) Prevention of *infection* is dependent on minimising exposure to potential sources of *Trichinella*:
  - a) facilities and the surrounding environment should be managed to prevent exposure of pigs to rodents and *wildlife*;
  - b) raw food waste of animal origin should not be present at the farm level;

- c) feed should comply with the requirements in Chapter 6.3. and should be stored in a manner to prevent access by rodents and *wildlife*;
  - d) a rodent control programme should be in place;
  - e) dead *animals* should be immediately removed and disposed of in accordance with provisions of Chapter 4.12.;
  - f) introduced pigs should originate from *herds* officially recognised as being under controlled management conditions as described in point 2, or from *herds* of a *compartment* with a negligible risk of *Trichinella infection*, as described in Article 8.14.5.
- 2) The *Veterinary Authority* may officially recognise pig *herds* as being under controlled management conditions if:
- a) all management practices described in point 1 are complied with and recorded;
  - b) visits by approved auditors have been made periodically to verify compliance with good management practices described in point 1; the frequency of inspections should be *risk*-based, taking into account historical information, *slaughterhouse* monitoring results, knowledge of established farm management practices and the presence of susceptible *wildlife*;
  - c) a subsequent programme of audits is conducted, taking into account the factors described in point b.

Article 8.14.4.

**Prerequisite criteria for the establishment of compartments with a negligible risk of *Trichinella* infection in domestic pigs kept under controlled management conditions**

*Compartments* with a negligible risk of *Trichinella infection* in domestic pigs kept under controlled management conditions can only be established in countries, in which the following criteria, as applicable, are met:

- 1) *Trichinella infection* is notifiable in the whole territory and communication procedures on the occurrence of *Trichinella infection* are established between the *Veterinary Authority* and the public health authority;
- 2) the *Veterinary Authority* has knowledge of, and authority over, all domestic pigs;
- 3) the *Veterinary Authority* has knowledge of the distribution of susceptible species of *wildlife*;
- 4) an *animal identification* and *animal traceability* system for domestic pigs is implemented in accordance with the provisions of Chapters 4.1. and 4.2.;
- 5) *Veterinary Services* have the capability to assess the epidemiological situation, detect the presence of *Trichinella infection* (including genotype, if relevant) in domestic pigs and identify exposure pathways.

Article 8.14.5.

**Compartment with a negligible risk of *Trichinella* infection in domestic pigs kept under controlled management conditions**

The *Veterinary Authority* may recognise a *compartment* in accordance with Chapter 4.4. as having negligible risk of *Trichinella infection* in domestic pigs kept under controlled management conditions if the following conditions are met:

- 1) all *herds* of the *compartment* comply with the requirements in Article 8.14.3.;
- 2) Article 8.14.4. has been complied with for at least 24 months;
- 3) the absence of *Trichinella infection* in the *compartment* has been demonstrated by a *surveillance* programme which takes into account current and historical information, and *slaughterhouse* monitoring results, as appropriate, in accordance with Chapter 1.4.;
- 4) once a *compartment* is established, a subsequent programme of audits of all *herds* within the *compartment* is in place to ensure compliance with Article 8.14.3.;
- 5) if an audit identifies a lack of compliance with the criteria described in Article 8.14.3. and the *Veterinary Authority* determines this to be a significant breach of biosecurity, the *herd(s)* concerned should be removed from the *compartment* until compliance is re-established.

Article 8.14.6.

**Recommendations for the importation of meat or meat products of domestic pigs**

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

- 1) has been produced in accordance with the Codex Code of Hygienic Practice for Meat (CAC/RCP 58-2005);

AND

- 2) either:

- a) comes from domestic pigs originating from a *compartment* with a negligible risk for *Trichinella infection* in accordance with Article 8.14.5.;

OR

- b) comes from domestic pigs that tested negative by an approved method for the detection of *Trichinella* larvae;

OR

- c) was processed to ensure the inactivation of *Trichinella* larvae in accordance with the recommendations of the Codex (under study).

Article 8.14.7.

**Recommendations for the importation of meat or meat products of wild or feral pigs**

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

- 1) has been produced in accordance with the Codex Code of Hygienic Practice for Meat (CAC/RCP 58-2005);

AND

- 2) either:

- a) comes from wild or feral pigs that tested negative by an approved method for the detection of *Trichinella* larvae;

OR

- b) was processed to ensure the inactivation of *Trichinella* larvae in accordance with the recommendations of the Codex (under study).

Article 8.14.8.

**Recommendations for the importation of meat or meat products of domestic equids**

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

- 1) has been produced in accordance with the Codex Code of Hygienic Practice for Meat (CAC/RCP 58-2005);

AND

- 2) comes from domestic equids that tested negative by an approved method for the detection of *Trichinella* larvae.

Article 8.14.9.

**Recommendations for the importation of meat or meat products of wild and feral equids**

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

- 1) has been inspected in accordance with the provisions in Chapter 6.2.;

AND

2) comes from wild or feral equids that tested negative by an approved method for the detection of *Trichinella* larvae.

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