

TERRESTRIAL ANIMAL HEALTH STANDARDS
COMMISSION

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CHAPTER 8.13.

INFECTION WITH *TRICHINELLA* SPP.

Article 8.13.1.

General provisions

Trichinellosis is a widely distributed zoonosis caused by eating raw or undercooked *meat* from *Trichinella*-infected food *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, nine 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 *meat products* 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 always 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 domesticus*), 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 8.13.2., *Veterinary Authorities* should apply the recommendations in this chapter.

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

Article 8.13.2.

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 8.13.3.

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 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 8.13.5.
- 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) at least two visits, a minimum of 6 months apart, have been made in the 12 months preceding recognition to verify compliance with good management practices described in point 1.;
 - c) a subsequent programme of audits is conducted.

Article 8.13.4.

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

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

- 1) *Trichinella infection* in all species of susceptible *animals* is notifiable in the whole territory and communication procedures on the occurrence of *Trichinella infection* is established between the *Veterinary Authority* and the Public Health Authority;
- 2) the *Veterinary Authority* has current knowledge of, and authority over, all domestic pigs;
- 3) the *Veterinary Authority* has current knowledge of the distribution of susceptible species of *wildlife*;

- 4) an *animal identification and traceability* system for domestic pigs is implemented in accordance with the provisions of Chapters 4.1. and 4.2.;
- 5) appropriate provisions are in place for tracing of *meat* from *wild animals* harvested for human consumption;
- 6) *surveillance* appropriate to the assessed epidemiological situation and capable of detecting the presence of *Trichinella infection* (including genotype, if relevant) in domestic pigs and exposure pathways, is in place.

Article 8.13.5.

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

A *compartment* may be officially recognised 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 requirements in Article 8.13.3.;
- 2) the criteria described in Article 8.13.4. have been complied with for at least 24 months;
- 3) the absence of *Trichinella infection* in the *compartment* has been demonstrated by a *surveillance* programme. The choice of design, including duration, prevalence and confidence levels should be based on the prevailing, or historical, epidemiological situation, as appropriate, in accordance with Chapter 1.4. and using tests described in the *Terrestrial Manual*;
- 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 8.13.3.;
- 5) if the audit identified a lack of compliance with one or more of the criteria described in Article 8.13.3. and the *Veterinary Authority* determined this to be a significant breach of biosecurity, the herd(s) concerned should be removed from the *compartment* until compliance is re-established.

Article 8.13.6.

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 8.13.5.;

OR

- b) comes from domestic pigs that tested negative by the digestion method for the detection of *Trichinella* larvae, as described in the *Terrestrial Manual*;

OR

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

Article 8.13.7.

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 the digestion method for the detection of *Trichinella* larvae, as described in the *Terrestrial Manual*;

OR

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

Article 8.13.8.

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 the digestion method for the detection of *Trichinella* larvae as described in the *Terrestrial Manual*.

Article 8.13.9.

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 the digestion method for the detection of *Trichinella* larvae as described in the *Terrestrial Manual*.