

TERRESTRIAL ANIMAL HEALTH STANDARDS COMMISSION

FEBRUARY 2013 REPORT

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~~ **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 *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 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 8.13.2., *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 **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 8.13.5.
- 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 by approved auditors, a minimum of 6 months apart, have been made periodically, in the 12 months preceding recognition 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 8.13.4.

Prerequisite criteria for the establishment of a compartments 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 in countries, in which if the following criteria, as applicable, 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* are 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;~~
- 5)6) ~~the Veterinary Services have the capability surveillance appropriate to the assessed the~~ epidemiological situation, ~~and capable of detecting~~ the presence of *Trichinella infection* (including genotype, if relevant) in domestic pigs and ~~identify~~ 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

~~The Veterinary Authority may recognise~~ a compartment ~~in accordance with Chapter 4.4.~~ ~~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 ~~the~~ requirements in Article 8.13.3.;
- 2) ~~the criteria described in~~ Article 8.13.4. ~~has~~ve 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 which takes into account the prevailing, or current and historical information, and slaughterhouse monitoring results, 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 an~~ audit identifies ~~ed~~ a lack of compliance with ~~one or more of~~ the criteria described in Article 8.13.3. and the Veterinary Authority determines ~~ed~~ 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 an approved~~ 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 **an approved** ~~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 **an approved** ~~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 **an approved** ~~the digestion~~ method for the detection of *Trichinella* larvae ~~as described in the Terrestrial Manual~~.