CHAPTER 8.17.

INFECTION WITH TRICHINELLA SPP.

Article 8.17.1.

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, 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 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, infection with Trichinella spp. 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) and Guidelines for the control of Trichinella spp. in meat of Suidae (CAC/GL 86-2015).

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 8.17.2., Veterinary Authorities should apply the recommendations in this chapter.

Standards for diagnostic tests are described in the Terrestrial Manual.

Article 8.17.2.

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, oocytes and embryos.
Article 8.17.3.

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 on pig establishments and should not be fed to pigs;
   c) feed should comply with the requirements in Chapter 6.4. 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 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 8.17.5.

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/abattoir 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 8.17.4.

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 current 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 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 8.17.5.

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 8.17.3.;
2) Article 8.17.4. 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/abattoir 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 8.17.3.;
5) if an audit identifies a lack of compliance with the criteria described in Article 8.17.3. 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 8.17.6.

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 8.17.5.;
   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 Codex Guidelines for the control of Trichinella spp. in meat of Suidae (CAC/GL 86-2015).

Article 8.17.7.

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 Codex Guidelines for the control of Trichinella spp. in meat of Suidae (CAC/GL 86-2015).

Article 8.17.8.

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 8.17.9.

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 Chapter 6.3.;

AND

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

NB: FIRST ADOPTED IN 1968; MOST RECENT UPDATE ADOPTED IN 2016.