CHAPTER 14.8.

SCRAPIE

Article 14.8.1.

General provisions and safe commodities

Scrapie is a neurodegenerative disease of sheep and goats. The main mode of transmission is from mother to offspring immediately after birth and to other susceptible neonates exposed to the birth fluids and tissues of an infected animal. Transmission occurs at a much lower frequency to adults exposed to the birth fluids and tissues of an infected animal. A variation in genetic susceptibility of sheep has been recognised. The *incubation period* of the disease is variable; however, it is usually measured in years. The duration in *incubation period* can be influenced by a number of factors including host genetics and strain of agent.

Scrapie is not considered to pose a risk to human health. The recommendations in this chapter are intended to manage the animal health risks associated with the presence of the scrapie agent in sheep and goats. The chapter excludes so-called 'atypical' scrapie because this condition is clinically, pathologically, biochemically and epidemiologically unrelated to 'classical' scrapie, may not be contagious and may, in fact, be a spontaneous degenerative condition of older sheep.

- When authorising import or transit of the following commodities derived from sheep or goats and any products made from these commodities and containing no other tissues from sheep or goats, Veterinary Authorities should not require any scrapie-related conditions, regardless of the scrapie risk status of the sheep and goat populations of the exporting country, zone or compartment:
 - a) in vivo derived sheep embryos handled in accordance with Chapter 4.8.;
 - b) meat (excluding materials as referred to in Article 14.8.12.);
 - c) hides and skins;
 - d) gelatine;
 - e) collagen prepared from hides or skins;
 - f) tallow (maximum level of insoluble impurities of 0.15% in weight) and derivatives made from this tallow;
 - g) dicalcium phosphate (with no trace of protein or fat);
 - h) wool or fibre.
- 2) When authorising import or transit of other commodities listed in this chapter, Veterinary Authorities should require the conditions prescribed in this chapter relevant to the scrapie risk status of the sheep and goat populations of the exporting country, zone or compartment.

Standards for diagnostic tests are described in the Terrestrial Manual.

Article 14.8.2.

Determination of the scrapie status of the sheep and goat populations of a country, zone, compartment or establishment

The scrapie status of the sheep and goat populations of a country, zone, compartment or establishment should be determined on the basis of the following criteria:

- 1) the outcome of a *risk* assessment identifying all potential factors for scrapie occurrence and their historic perspective, in particular the:
 - a) importation or introduction of sheep and goats or their semen, *in vivo* derived goat embryos or *in vitro* processed sheep and goat oocytes or embryos potentially infected with scrapie;
 - b) extent of knowledge of the population structure and husbandry practices of sheep and goats;
 - c) feeding practices, including consumption of protein meal or greaves derived from ruminants;
 - d) importation of milk and milk products of sheep or goats origin intended for use in feeding of sheep and goats;

- an ongoing awareness programme for veterinarians, farmers, and workers involved in transportation, marketing and slaughter of sheep and goats to facilitate recognition and encourage reporting of all animals with clinical signs compatible with scrapie;
- 3) a surveillance and monitoring system including the following:
 - a) official veterinary surveillance, reporting and regulatory control in accordance with Chapter 1.4.;
 - b) a Veterinary Authority with current knowledge of, and authority over, all establishments which contain sheep and goats in the whole country;
 - compulsory notification and clinical investigation of sheep and goats showing clinical signs compatible with scrapie;
 - d) examination, in accordance with the *Terrestrial Manual*, in a *laboratory* of appropriate material from sheep and goats older than 18 months displaying clinical signs compatible with scrapie;
 - e) maintenance of records including the number and results of all investigations for at least seven years.

Article 14.8.3.

Scrapie free country or zone

Countries or zones may be considered free from scrapie if within the said territory:

 a risk assessment, as described in point 1 of Article 14.8.2., has been conducted, and it has been demonstrated that appropriate measures are currently in place and have been taken for the relevant period of time to manage any risk identified and points 2 and 3 have been complied with for the preceding seven years;

AND

- 2) one of the following conditions should be met:
 - a) the country or the zone has demonstrated historical freedom as follows:
 - i) scrapie has been notifiable for at least 25 years; and
 - ii) a formal programme of targeted *surveillance* and monitoring, which includes testing of sheep and goats displaying clinical signs compatible with scrapie and those over 18 months of age slaughtered, culled or found dead on farm, can be documented as having been in place for at least 10 years; and
 - appropriate measures to prevent scrapie introduction can be documented as having been in place for at least 25 years; and
 - either scrapie has never been reported; or
 - no case of scrapie has been reported for at least 25 years;
 - b) for at least seven years, sheep and goats displaying clinical signs compatible with scrapie have been tested. Also a sufficient number of sheep and goats over 18 months of age, representative of slaughtered, culled or found dead on farm, have been tested annually, to provide a 95% level of confidence of detecting scrapie if it is present in that population at a prevalence rate exceeding 0.1% and no case of scrapie has been reported during this period; or
 - c) all establishments containing sheep or goats have been accredited free as described in Article 14.8.5.;

AND

the feeding to sheep and goats of *protein meal* or *greaves* of ruminant origin has been banned and effectively enforced in the whole country for at least seven years;

AND

4) introductions of sheep and goats or their semen, *in vivo* derived goat embryos or *in vitro* processed sheep and goat oocytes or embryos from countries or *zones* not free from scrapie are carried out in accordance with Articles 14.8.6., 14.8.7., 14.8.8. or 14.8.9., as relevant.

Article 14.8.4.

Compartment free from scrapie

To qualify as a *compartment* free from scrapie, all sheep and goats in a *compartment* should be certified by the *Veterinary Authority* as satisfying the following requirements:

all establishments within the compartment are free from scrapie in accordance with Article 14.8.5.;

- 2) all establishments within the compartment are managed under a common biosecurity plan protecting them from introduction of scrapie, and the compartment has been approved by the Veterinary Authority in accordance with Chapters 4.4. and 4.5.:
- 3) introductions of sheep and goats are allowed only from free establishments or free countries;
- 4) introductions of *in vivo* derived goat embryos and *in vitro* processed sheep and goat oocytes or embryos are allowed either from free establishments or in accordance with Article 14.8.9.;
- 5) sheep and goat semen should be introduced into the compartment in accordance with Article 14.8.8.;
- 6) sheep and goats in the compartment should have no direct or indirect contact, including shared grazing, with sheep or goats from establishments not within the compartment.

Article 14.8.5.

Scrapie free establishment

To qualify as free from scrapie, an establishment of sheep and goats should satisfy the following requirements:

- 1) in the country or zone where the establishment is situated, the following conditions are fulfilled:
 - a) the disease is compulsorily notifiable;
 - b) an awareness, surveillance and monitoring system as referred to in Article 14.8.2. is in place;
 - c) affected sheep and goats are killed and completely destroyed;
 - d) the feeding to sheep and goats of *protein meal* or *greaves* of ruminant origin has been banned and effectively enforced in the whole country for at least seven years;
 - e) an official accreditation scheme is in operation under the supervision of the *Veterinary Authority*, including the measures described in point 2 below;
- 2) in the establishment the following conditions have been complied with for at least seven years:
 - a) sheep and goats are permanently identified and records maintained, to enable trace back to their establishment of birth;
 - b) records of movements of sheep and goats in and out of the establishment are maintained;
 - c) introductions of sheep and goats are allowed only from free establishments or establishment at an equal or higher stage in the process of accreditation:
 - d) introduction of *in vivo* derived goat embryos and *in vitro* processed sheep and goat oocytes or embryos should comply with Article 14.8.9.;
 - e) sheep and goat semen should be introduced into the establishment in accordance with Article 14.8.8.;
 - f) an Official Veterinarian inspects sheep and goats in the establishments and audits the records at least once a year;
 - g) no case of scrapie has been reported;
 - h) sheep and goats of the establishments should have no direct or indirect contact, including shared grazing, with sheep or goats from establishments of a lower status;
 - i) all culled sheep and goats over 18 months of age are inspected by an *Official Veterinarian*, and a proportion of those exhibiting wasting signs and all those exhibiting neurological signs are tested in a *laboratory* for scrapie. The selection of the sheep and goats to be tested should be made by the *Official Veterinarian*. Sheep and goats over 18 months of age that have died or have been killed for reasons other than routine *slaughter* should also be tested (including 'fallen' stock and those sent for emergency *slaughter*).

Article 14.8.6.

Recommendations for importation from countries or zones not considered free from scrapie

For sheep and goats for breeding or rearing

Veterinary Authorities should require the presentation of an international veterinary certificate attesting that the animals come from an establishment free from scrapie as described in Article 14.8.5.

Article 14.8.7.

Recommendations for importation from countries or zones not considered free from scrapie

For sheep and goats for slaughter

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

- 1) in the country or zone:
 - a) the disease is compulsorily notifiable;
 - b) an awareness, surveillance and monitoring system as referred to in Article 14.8.2. is in place;
 - c) affected sheep and goats are killed and completely destroyed;
- 2) the sheep and goats selected for export showed no clinical sign of scrapie on the day of shipment.

Article 14.8.8.

Recommendations for importation from countries or zones not considered free from scrapie

For semen of sheep and goats

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

- 1) the donor animals:
 - a) are permanently identified to enable trace back to their establishment of origin;
 - b) showed no clinical sign of scrapie at the time of semen collection;
- 2) the semen was collected, processed and stored in accordance with Chapters 4.6. and 4.7.

Article 14.8.9.

Recommendations for importation from countries or zones not considered free from scrapie

For in vivo derived goat embryos and in vitro processed sheep and goat oocytes or embryos

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

- 1) in the country or zone:
 - a) the disease is compulsorily notifiable;
 - b) an awareness, surveillance and monitoring system as referred to in Article 14.8.2. is in place;
 - c) affected sheep and goats are killed and completely destroyed;
 - the feeding to sheep and goats of protein meal or greaves of ruminant origin has been banned and effectively enforced in the whole country;
- 2) the donor animals either have been kept since birth in a free establishment, or meet the following conditions:
 - a) are permanently identified to enable trace back to their establishment of origin;
 - have been kept since birth in establishments in which no case of scrapie had been confirmed during their residency;
 - c) showed no clinical sign of scrapie at the time of oocyte or embryo collection;
- 3) the oocytes or embryos were collected, processed and stored in accordance with Chapters 4.8., 4.9. and 4.10., as relevant.

Article 14.8.10.

Recommendations for importation from countries or zones not considered free from scrapie

For milk and milk products of sheep or goat origin intended for use in feeding of sheep and goats

Veterinary Authorities should require the presentation of an international veterinary certificate attesting that the milk and milk products come from scrapie free establishments.

Article 14.8.11.

Recommendations on protein meal

Protein meal containing any sheep or goat protein, or any feedstuffs containing that type of *protein meal*, which originate from countries not considered free from scrapie should not be traded between countries for ruminant feeding.

Article 14.8.12.

Recommendations for importation from countries or zones not considered free from scrapie

For skulls including brains, ganglia and eyes, vertebral column including ganglia and spinal cord, tonsils, thymus, spleen, intestine, adrenal gland, pancreas, or liver, and protein products derived therefrom, from sheep and goats

- These commodities should not be traded for use in ruminant feed.
- 2) For purposes other than ruminant feeding, *Veterinary Authorities* should require the presentation of an *international veterinary certificate* attesting that:
 - a) in the country or zone:
 - i) the disease is compulsorily notifiable;
 - ii) an awareness, surveillance and monitoring system as referred to in Article 14.8.2. is in place;
 - iii) affected sheep and goats are killed and completely destroyed;
 - b) the materials come from sheep and goats that showed no clinical sign of scrapie on the day of slaughter.

Article 14.8.13.

Recommendations for the importation of ovine and caprine materials destined for the preparation of biologicals

Veterinary Authorities of importing countries should require the presentation of an international veterinary certificate attesting that the products originate from sheep and goats born and raised in a scrapie free country, zone or establishment.

 $\mbox{\sc nb}$: first adopted in 2002; most recent update adopted in 2011.