Japan's Comments on

The Code Commission Report of the September 2014 meeting

Japan would like to express appreciation to the Terrestrial Animal Health Standards Commission (TAHSC) and other relevant Commissions, Working Groups and ad hoc Groups for all the works they have done and thanks the TAHSC for giving us the opportunity of offering comments on proposed revisions to the text of Terrestrial Animal Health Code.

Please find our comments on the following texts:

1. **Chapter 8.7. Infection with foot and mouth disease virus**
2. **Chapter 4.16. High health status horse subpopulation and the report of the ad hoc group**
3. **User's Guide**
4. **Chapter 5.1. General Obligations related to Certifications**
5. **Glossary**
6. **Chapter 3.2. Evaluation of Veterinary Services**
7. **Draft Chapter 6.X. Prevention and Control of *Salmonella* in Pig Herds**
8. **Draft Chapter 7.X. Animal Welfare and Dairy Cattle Production Systems**
9. **Draft Chapter 7.X. Welfare of Working Equids**
10. **Chapter X.X. Infection with *Taenia Solium***

1. Chapter 8.7. Infection with foot and mouth disease virus

General comment

Clarification on the terminology

Japan suggests revising the term "*case*" of FMD, "*infection*" of FMDV and "transmission" of FMDV and their use *and* clarifying the differences, due to the contradictions found for example:

1) The *case* of FMD according to the glossary is an animal infected with FMDV, which includes or is same as FMDV *infection*, whereas their absences are described in parallel in item 2) a) & b) of Article 8.7.2 as requirements to be a FMD free country or zone where vaccination is not

practiced.

2) While absence of the *case* of FMD, i.e. FMDV *infection*, during the past two years, is described in item 2) a) of Article 8.7.3 as a requirement to be a FMD free country or zone where vaccination is practiced, according to the item 3) a) i), evidence showing absence of FMDV *infection* is only required to non-vaccinated animals.

Specific comments

a) Vaccine-to-live issues

Article 8.7.7.

Recovery of free status (see Figures 1 and 2)

1) When a FMD *case* occurs in a FMD free country or *zone* where *vaccination* is not practised, one of the following waiting periods is required to regain this free status:

   a) three months after the disposal of the last *case* where a *stamping-out policy*, without emergency *vaccination*, and *surveillance* are applied in accordance with Articles 8.7.40. to 8.7.42.; or

   b) three months after the disposal of the last *case* or the *slaughter* of all vaccinated animals whichever occurred last, where a *stamping-out policy*, emergency *vaccination* and *surveillance* in the remaining animals are applied in accordance with Articles 8.7. 40. to 8.7.42.; or

   c) six months after the disposal of the last *case* or the last *vaccination* whichever occurred last, where a *stamping-out policy*, emergency *vaccination* not followed by the slaughtering of all vaccinated animals, and *surveillance* are applied in accordance with Articles 8.7.40. to 8.7.42. However, this requires a serological survey based on the detection of antibodies to nonstructural proteins of FMDV to demonstrate the absence of *infection* in the remaining vaccinated population. ~~This period can be reduced to three months if effectiveness of *vaccination* using vaccine compliant with the *Terrestrial Manual* is demonstrated and additional serological *surveillance* for antibodies to nonstructural proteins is carried out in all vaccinated *herds*. This includes sampling all vaccinated ruminants and their non-vaccinated offspring, and a representative number of animals of other species, based on an acceptable level of confidence.~~

(Text partly omitted)

2) When a FMD *case* occurs in a FMD free country or *zone* where *vaccination* is not practised, the following waiting period is required to gain the status of FMD free country or *zone* where *vaccination* is practised: six~~three~~ months after the disposal of the last *case* where a *stamping-out policy* has been applied and a continued *vaccination* policy has been adopted, provided that *surveillance* is applied in accordance with Articles 8.7.40. to 8.7.42., and a serological survey based on the detection of antibodies to nonstructural proteins of FMDV demonstrates the absence of FMDV.

(Text partly omitted)

Rationale

Japan is concerned about the limitation on both the sensitivity and specificity of the NSP ELISA in demonstrating absence of FMDV in vaccinated animals[†], and therefore disagree to reduce the waiting period even additional serological surveillance to prove the effectiveness of the vaccine are demonstrated.

Another concern regarding this reduction of the waiting period for vaccine-to-live pathway up to three months is whether the risk reduced by the vaccine-to-live pathway is equivalent to those by other stamping-out and/or vaccine-to-slaughter pathway. It substantially could mean that the risk reduced by those three kinds of pathway is the same and this could discourage or even compromise the control based on culling of the animals and encourage Member Countries depending on the vaccination and unreliable testing system.

In case of the FMD free status with vaccination, we have seen the outbreaks shortly after the status approval. Japan understands this is a possible case, but regrets whether it won't lose the credibility of the OIE even from the general public. Therefore Japan again wonders whether the reduction of waiting period is worthwhile.

[†] K. Fukai *et al*. Comparative Evaluation of Three Commercial ELISA Kits for Detection of Antibodies to a Nonstructural Protein of Foot-and-Mouth Disease Virus *J. Vet. Med. Sci.* 75(6):693-699, 2013

b) Compliance to the Terrestrial Manual

Article 8.7.2.

FMD free country or zone where vaccination is not practised

(Text partly omitted)

To qualify for inclusion in the existing list of FMD free countries or *zones* where *vaccination* is not practised, a Member Country should:

(Text partly omitted)

3) supply documented evidence that for the past 12 months:

a) *surveillance* in accordance with Articles 8.7.40. to 8.7.42. has been implemented to detect clinical signs of FMD and show absence of:

i) FMDV *infection* in non-vaccinated animals;

ii) FMDV transmission in previously vaccinated animals when transition is made from FMD free country or *zone* where *vaccination* is practised to FMD free country or *zone* where *vaccination* is

not practised;

b) regulatory measures for the prevention and early detection of FMD have been implemented;

c) diagnostic tests comply with the standards described in the *Terrestrial Manual;*

(Text partly omitted)

Provided the conditions of points 1 to 4 are fulfilled, the status of a country or *zone* will not be affected by applying official emergency *vaccination* of the FMD susceptible animals in zoological collections in the face of a FMD threat identified by the *Veterinary Authorities*, provided that the following conditions are met:

– the zoological collection has a primary purpose to exhibit *animals* or preserve rare species, has been identified, including the boundaries of the facility, and is included in the country's contingency plan for FMD;

– appropriate biosecurity measures are in place, including effective separation from other susceptible domestic populations or *wildlife*;

– the *animals* are identifiable as belonging to the collection and any movements can be traced;

– the vaccine used complies with the standards described in the *Terrestrial Manual*;

– *vaccination* is conducted under the supervision of the *Veterinary Authority*;

– the zoological collection is placed under *surveillance* for at least 12 months after *vaccination*.

(Text partly omitted)

Article 8.7.3.

FMD free country or zone where vaccination is practised

(Text partly omitted)

To qualify for inclusion in the list of FMD free countries or *zones* where *vaccination* is practised, a Member Country should:

(Text partly omitted)

3) supply documented evidence that:

a) *surveillance* in accordance with Articles 8.7.40. to 8.7.42. has been implemented to detect clinical signs of FMD and show absence of:

i) FMDV *infection* in non-vaccinated animals;

ii) FMDV transmission in vaccinated animals;

b) regulatory measures for the prevention and early detection of FMD have been implemented;

c) compulsory systematic *vaccination* in the target population has been carried out to achieve adequate

vaccination coverage and population immunity;–

d) the diagnostic tests and the vaccine used complylies with the standards described in the *Terrestrial Manual*, including appropriate vaccine strain selection;

(Text partly omitted)

Article 8.7.39.

OIE endorsed official control programme for FMD

(Text partly omitted)

For a Member Country's *official control programme* for FMD to be endorsed by the OIE, the Member Country should:

5) submit evidence that FMD *surveillance* is in place:

a) taking into account provisions in Chapter 1.4. and the provisions on *surveillance* of this chapter;

b) have diagnostic capability and procedures, including regular submission of samples to a *laboratory* that carries out diagnosis and further characterisation of strains;

6) submit evidence that FMD diagnostic tests comply with the standards described the *Terrestrial Manual*;

7) where *vaccination* is practised as a part of the *official control programme* for FMD, provide:

a) evidence (such as copies of legislation) that *vaccination* of selected populations is compulsory;

(Text partly omitted)

Rationale

The compliance to the standards for both diagnostic tests and vaccines need to be consistently prescribed as the requirements for submission of the evidence.

Related comment

Although the text change is not proposed, submission of the evidence to see the compliance with the conditions necessary to apply official emergency vaccination of the FMD susceptible animals in zoological collections should be included in Article 1.6.6, the questionnaire on FMD, and the essence reflected in the description in Article 8.7.2.

c) Vaccination free herd

Article 8.7.4.

FMD free compartment

A FMD free *compartment* can be established in either a FMD free country or *zone* or in an infected country or *zone*. In defining such a *compartment* the principles of Chapters 4.3. and 4.4. should be followed. Susceptible animals in the FMD free *compartment* should be separated from any other susceptible animals by the application of an effective biosecurity management system.

A Member Country wishing to establish a FMD free *compartment* should:

1) have a record of regular and prompt animal *disease* reporting and if not FMD free, have an *official control programme* and a *surveillance* system for FMD in place according to Articles 8.7.40. to 8.7.42. that allows knowledge of the prevalence, distribution and characteristics of FMD in the country or *zone*;

2) declare for the FMD free *compartment* that:

   a) there has been no *case* of FMD during the past 12 months;

   b) no evidence of FMDV *infection* has been found during the past 12 months;

   c) *vaccination* against FMD is prohibited;–

   d) no animal vaccinated against FMD ~~within the past 12 months~~ is in the *compartment*;

Rationale

Japan suggests not including an animal having a vaccinated history in the FMD free compartment.

d) Clarification

Article 8.7.6.

Establishment of a containment zone within a FMD free country or zone

For this to be achieved and for the Member Country to take full advantage of this process, the *Veterinary Authority* should submit as soon as possible to the OIE, in support of the application documented evidence that:

1) - 9) (Text omitted)

The free status of the areas outside the *containment zone* is suspended while the *containment zone* is being established. The free status of these areas may be reinstated irrespective of the provisions of Article 8.7.7., once the *containment zone* has been approved by the OIE as complying with points 1 to 9 above. *Commodities* from susceptible animals for *international trade* should be identified as to their origin, either from inside or outside the *containment zone*.

Other editorial comments

a) The fourth paragraph of Article 8.7.2

Article 8.7.2.

FMD free country or zone where vaccination is not practised

(Text partly omitted)

To qualify for inclusion in the ~~existing~~ list of FMD free countries or *zones* where *vaccination* is not practised, a Member Country should:

Rationale

In line with the description in Article 8.7.3

b) The beginning of item 3 of Article 8.7.7

Article 8.7.7.

Recovery of free status (see Figures 1 and 2)

(Text partly omitted)

3) When a FMDV *infection*~~*outbreak*~~ or ~~FMDV~~ transmission occurs in a FMD free country or *zone* where *vaccination* is practised, one of the following waiting periods is required to regain this free status:

(Text partly omitted)

c) Insertion of an index to ease understanding of the chapter

CHAPTER 8.7.

INFECTION WITH FOOT AND MOUTH DISEASE VIRUS

Article 8.7.1.

Article 8.7.2.
FMD free country or zone where vaccination is not practised

Article 8.7.3.
FMD free country or zone where vaccination is practised

Article 8.7.4.
FMD free compartment

Article 8.7.5.

FMD infected country or zone

Article 8.7.6.

Establishment of a containment zone within a FMD free country or zone

Article 8.7.7.

Recovery of free status (see Figures 1 and 2)

Article 8.7.8.

Direct transfer of FMD susceptible animals from an infected zone for slaughter in a free zone (where vaccination either is or is not practised)

Article 8.7.9.

Direct transfer of FMD susceptible animals from a containment zone for slaughter in a free zone (where vaccination either is or is not practised)

Article 8.7.10.

Recommendations for importation from FMD free countries or zones where vaccination is not practised or FMD free compartments

For FMD susceptible animals

Article 8.7.11.

Recommendations for importation from FMD free countries or zones where vaccination is practised

For domestic ruminants and pigs

Article 8.7.12.

Recommendations for importation from FMD infected countries or zones

For domestic ruminants and pigs

Article 8.7.13.

Recommendations for importation from FMD free countries or zones where vaccination is not practised or FMD free compartments

For fresh semen of domestic ruminants and pigs

Article 8.7.14.

Recommendations for importation from FMD free countries or zones where vaccination is not practised or FMD free compartments

For frozen semen of domestic ruminants and pigs

Article 8.7.15.

Recommendations for importation from FMD free countries or zones where vaccination is practised

For frozen semen of domestic ruminants and pigs

Article 8.7.16.

Recommendations for importation from FMD infected countries or zones

For frozen semen of domestic ruminants and pigs

Article 8.7.17.

Recommendations for the importation of *in vivo* derived embryos of cattle

Article 8.7.18.

Recommendations for importation from FMD free countries or zones where vaccination is not practised or FMD free compartments

For *in vitro* produced embryos of cattle

Article 8.7.19.

Recommendations for importation from FMD free countries or zones where vaccination is practised

For *in vitro* produced embryos of cattle

Article 8.7.20.

Recommendations for importation from FMD free countries or zones where vaccination is not practised or FMD free compartments

For fresh meat or meat products of FMD susceptible animals

Article 8.7.21.

Recommendations for importation from FMD free countries, or zones where vaccination is practised

For fresh meat and meat products of ruminants and pigs

Article 8.7.22.

Recommendations for importation from FMD infected countries or zones, where an official control programme exists

For fresh meat of cattle and water buffaloes (*Bubalus bubalis*) (excluding feet, head and viscera)

Article 8.7.23.

Recommendations for importation from FMD infected countries or zones

For meat products of FMD susceptible animals

Article 8.7.24.

Recommendations for importation from FMD free countries or zones where vaccination either is or is not practised or FMD free compartments

For milk and milk products intended for human consumption and for products of animal origin (from FMD susceptible animals) intended for use in animal feeding or for agricultural or industrial use

Article 8.7.25.

Recommendations for importation from FMD infected countries or zones where an official control programme exists

For milk and milk products

Article 8.7.26.

Recommendations for importation from FMD infected countries

For blood-meal and meat-meals from FMD susceptible animals

Article 8.7.27.

Recommendations for importation from FMD infected countries

For wool, hair, bristles, raw hides and skins from FMD susceptible animals

Article 8.7.28.

Recommendations for importation from FMD infected countries or zones

For straw and forage

Article 8.7.29.

Recommendations for importation from FMD free countries or zones where vaccination either is or is not practised

For skins and trophies derived from FMD susceptible wildlife

Article 8.7.30.

Recommendations for importation from FMD infected countries or zones

For skins and trophies derived from FMD susceptible wildlife

Article 8.7.31.

Procedures for the inactivation of FMDV in meat and meat products

Article 8.7.32.

Procedures for the inactivation of FMDV in wool and hair

Article 8.7.33.

Procedures for the inactivation of FMDV in bristles

Article 8.7.34.

Procedures for the inactivation of FMDV in raw hides and skins

Article 8.7.35.

Procedures for the inactivation of FMDV in milk and cream for human consumption

Article 8.7.36.

Procedures for the inactivation of FMDV in milk for animal consumption

Article 8.7.37

Procedures for the inactivation of FMDV in skins and trophies from wild animals susceptible to the disease

Article 8.7.38.

Procedures for the inactivation of FMDV in casings of ruminants and pigs

Article 8.7.39.

OIE endorsed official control programme for FMD

Article 8.7.40.

General principles of surveillance

Article 8.7.41.

Methods of surveillance–

1. Clinical surveillance
2. Virological surveillance
3. Serological surveillance

Article 8.7.42.

The use and interpretation of serological tests (see Figure 3)

Procedure in case of positive test results:

Follow-up of field and laboratory findings:

Figure 1. Schematic representation of the minimum waiting periods and pathways for recovery of FMD free status after an outbreak in a free country or zone where vaccination is not practised

Figure 2. Schematic representation of the minimum waiting periods and pathways for recovery of FMD free status after an outbreak in a free country or zone where vaccination is practised

Figure 3. Schematic representation of laboratory tests for determining evidence of FMDV infection by means of serological surveys

Article 8.7.1.

Or, in short:

CHAPTER 8.7.

INFECTION WITH FOOT AND MOUTH DISEASE VIRUS

Article 8.7.1.

Article 8.7.2. to 8.7.5.

FMD status of country or zone where vaccination is or is not practised, or compartment

Article 8.7.6. to 8.7.9.

Establishment of containment zone upon FMD outbreak, direct transfer of FMD susceptible animals from infected or containment zones for slaughter in a free zone and recovery of the free status

Article 8.7.10. to 8.7.19.

Recommendations for importation for FMD susceptible animals, semen and embryos

Article 8.7.20. to 8.7.30.

Recommendations for importation for commodities produced from FMD susceptible animals and straw and forage

Article 8.7.31. to 8.7.38.

Procedures for the inactivation of FMDV in commodities produced from FMD susceptible animals

Article 8.7.39.

OIE endorsed official control programme for FMD

Article 8.7.40. to 8.7.42.

General principles and methods of surveillance, the use and interpretation of serological tests

Figure 1. and 2. Schematic representation of the minimum waiting periods and pathways for recovery of FMD free status after an outbreak in a free country or zone where vaccination is or is not practised

Figure 3. Schematic representation of laboratory tests for determining evidence of FMDV infection by means of serological surveys

Article 8.7.1.

Rationale

Given the current chapter's complexity and length, Japan recommends inserting a summary of the chapter or an index before the Articles as proposed above or somewhere suitable before the chapter.

Presentation of an overview at the beginning is much more user friendly, contributes to the comprehension as well as the quality control of the chapter. Improving user friendliness is in line with the OIE policy in enhancing inclusiveness of Member Countries for the standard setting procedures.

d) Mistypes

Article 8.7.2.

(Text partly omitted)

Provided the conditions of points 1) to 4) are fulfilled, the status of a country or *zone* will not be affected by applying official emergency *vaccination* of the FMD susceptible animals in zoological collections in the face of a FMD threat identified by the *Veterinary Authorities*, provided that the following conditions are met: .

(Text partly omitted)

Article 8.7.3.

(Text partly omitted)

Retention on the list requires that the information in points 2), 3) and 4) above be re-submitted annually and

changes in the epidemiological situation or other significant events including those relevant to points 3)b) and 4) should be reported to the OIE according to the requirements in Chapter 1.1.

(Text partly omitted)

2. Chapter 4.16. High health status horse subpopulation and the report of the ad hoc group

1) A comment on the Code chapter 4.16.

CHAPTER 4.16.

HIGH HEALTH STATUS HORSE SUBPOPULATION

Article 4.16.1.

General provisions

This chapter provides recommendations for the establishment of a *subpopulation* of horses that are moved internationally to compete in equestrian competitions, including throughbred races, and that have a high health status certified by the *Veterinary Authority*, in order to facilitate their safe temporary importation, onward movement and return to the country of usual residence.

For the purpose of the *Terrestrial Code*, a high health status horse *subpopulation* is one with a distinct status with respect to OIE listed ~~specified~~ diseases, which has been established in accordance with the provisions in Chapter 4.4., by the application of documented health management practices and biosecurity measures to create and maintain a functional separation between horses within the defined *subpopulation* and all other equids at all times.

Rationale

The ‘specified diseases’ should be in principle the OIE listed diseases, currently all eleven equine diseases and seven multiple species diseases i.e. anthrax, equine encephalomyelitis, rabies, Japanese encephalitis, surra, tularemia and West Nile fever, and it should be clearly defined at the beginning.

2) Clarification on the Code chapter 4.16.

Japan requests to inform the aimed statuses of the following texts and their foreseen schedule to be presented to Member Countries and finalized:

(i) ‘International veterinary certificate’ in item 3-a) of Article 4.16.2.;

(ii) ‘International biosecurity plan’ in items 3-c) and d) of Article 4.16.2. and in the second paragraph of Article 4.16.3.; and

(iii) ‘The relevant OIE biosecurity guidelines’ in the second paragraph of Article 4.16.3.

Japan recognizes the draft of (i) is presented as Appendix XXII E and others are not yet available.

3) Comments on the ad hoc group reports

Japan considers it is inappropriate to seek Member Countries' comments directly on the ad hoc group reports: it will cause confusion as the terminologies, proposed schemes and rationale are neither well defined nor well presented.

Therefore, Japan reserves the right to comment on the current texts in the reports including Appendix XXII D and Appendix XXII E, however, requests clarification on:

(i) the definition of following terms: 'HHS premises' and 'HHP stables or premises' appeared in 'Guide to the management of the high health status equine sub-population and the high health – high performance horse', Appendix XXII D; A visual sketch indicating their physical relations would be necessary;

(ii) the aimed statuses and schedule of and relationship among the following texts in p.9 of the ad hoc group meeting report of June 2014, annex XXII A:

a. 'Operationalisation Guide or Guidance';

b. 'Chapter on HHP critical six diseases';

c. 'HHP horse management handbook';

d. 'HHP certification guideline'; and

e. 'A guide to self-declaration of an EDFZ';

(iii) the definition of 'HHP critical six diseases' described in p.9 of the ad hoc group meeting report of June 2014, annex XXII.

If the 'high health high performance (HHP) critical six diseases' means African horse sickness, Venezuelan equine encephalomyelitis, equine infectious anaemia, glanders, equine influenza and equine piroplasmosis, for which either their known health statuses or control measures are required to become a HHP horse, Japan at least needs explanation on how and why each of other twelve OIE listed diseases are excluded.

Above all, Japan currently accepts only horses that have negative test results for both equine viral arthritis and equine piroplasmosis.

Finally, upon discussion with the national horseracing associations, Japan was informed of the difficulties in applying the proposed scheme, due to the frequent movements of racehorses for temporary rest and conditioning, including to pastures where breeding horses may reside. Japan requests the OIE to encourage International Equestrian Federation (FEI) and International Federation of Horseracing Authorities (IFHA) to communicate closely with their Member Countries' organizations in translating the concept into practice.

3. User's Guide

A. Introduction

1) The OIE *Terrestrial Animal Health Code* (hereinafter referred to as the *Terrestrial Code*) sets out standards for the improvement of terrestrial animal health, public health and animal welfare ~~and veterinary public health~~ worldwide. The purpose of this guide is to advise the Veterinary Authorities of OIE Member Countries on how to use the *Terrestrial Code*.

Rationale

We recognise the OIE is making every effort to improve veterinary public health but the *Terrestrial Code* covers 'public health' that is more extensive than a limited field such as 'veterinary public health' because the 'veterinary public health' is one of the fields of study, research, education and administration, which is related to veterinarian's contribution to the improvement of public health. The *Terrestrial Code* aims at the improvement of public health by improving 'veterinary public health' especially by improving the safety of foods derived from animals.

3) The OIE standards are based on the most recent scientific and technical information. Correctly applied, they protect animal health, public health and animal welfare ~~and veterinary public health~~ during production, ~~and~~ trade and use in animals and animal products.

Rationale

The draft Chapter on welfare on working equids would deal with animal welfare not during production and trade in animals and animal products.

The OIE standards cannot protect the 'veterinary public health' because of the same reason above but can protect public health from risk caused by animals.

4) ~~The absence of chapters, articles or~~ If recommendations on particular aetiological agents ~~or~~ for the importation of particular commodities ~~does not mean that~~ are absent in the *Terrestrial Code*, the Veterinary Authorities ~~may not~~ should apply appropriate animal health measures based on risk ~~analysis~~ assessment

conducted in accordance with the *Terrestrial Code* or provisional animal health measures on the basis of available pertinent information.

Rationale

The user's guide should be user friendly. It is difficult for Member Countries other than the English-speaking countries to understand double negative English sentences. They should be avoided to facilitate to correctly understand the Code among all Member Countries, as much as possible.

The *Terrestrial Code*, which is not legally binding, generally provides trade-related standards in a manner like 'Recommendations for the importation of something'. The Japanese proposed text is more definite and easier to understand for Member Countries.

Subject to Article 5-1 of the *Agreement of the Application of Sanitary and Phytosanitary Measures* in annex 1A of the *Marrakesh Agreement Establishing the World Trade Organization* (*SPS Agreement*), WTO Members can apply appropriate sanitary and phytosanitary measures based on an assessment of risk but not on risk analysis. According to the Glossary of the *Terrestrial Code*, risk analysis means the process composed of hazard identification, risk assessment, risk management and risk communication. WTO Members do not necessarily have to conduct risk communication before applying animal health measures.

Subject to Article 5-7 of the *SPS Agreement*, WTO Members can provisionally adopt sanitary or phytosanitary measures on the basis of available pertinent information in cases where relevant scientific evidence is insufficient. OIE Codes should not curtail the Members' rights under the *SPS Agreement*.

B. *Terrestrial Code* content

4) The standards in the chapter~~s~~ of Section 2 are designed to guide the importing country in conducting import risk analysis including risk assessment in the absence of OIE ~~trade standards~~ recommendations on particular aetiological agents for the importation of particular commodities. The importing country may also use the~~se~~ standards in Chapter 2.1. to justify import measures which are stricter than ~~existing OIE trade standards~~ the recommendations existing in the *Terrestrial Code*.

Rationale

WTO Members have to conduct only risk assessment in the absence of OIE standards because of the same reason above.

OIE Member Countries cannot identify particular OIE standards as "OIE trade standards" by their appearance. The Japanese proposed text is more definite and

understandable for Member Countries because the *Terrestrial Code* generally provides trade-related standards in a manner like 'Recommendations for the importation of something'.

5) The standards in the chapters of Section 3 are designed for the establishment, maintenance and evaluation of Veterinary Services, including veterinary legislation and communication. These standards are intended to assist the Veterinary Services of Member Countries to meet their objectives of improving terrestrial animal health and welfare and ~~veterinary~~ public health related to terrestrial animals, as well as to establish and maintain confidence in their international veterinary certificates.

Rationale

See the rationale for 1 of A.

6) The standards in the chapters of Section 4 are designed for the implementation of measures for the prevention and control of pathogenic agents. The ~~M~~measures in this section include animal identification, traceability, zoning, compartmentalisation, disposal of dead animals, disinfection, ~~disinsection~~ disinsectisation and general hygiene precautions. Some of the chapters address the specific sanitary measures to be applied for the collection and processing of semen and embryos of animals.

Rationale

Rhetorical correction

10) The standards in each of the chapters of Section 8 to 15 are designed to prevent the aetiological agents of OIE listed diseases~~, infections or infestations~~ from being introduced into an importing country. The standards are developed ~~take into account~~ on the basis of the nature of the traded commodity, the animal health status of the exporting country, zone or compartment, and the risk reduction measures applicable to each commodity.

These standards assume that the agent is either not present in the importing country or is the subject of a control or eradication programme. Section 8 to 15 each relate to the host species of the pathogenic agent: multiple species or single species of ~~the families~~ Apidae, Aves, Bovidae, Equidae, Leporidae, Caprinae and Suidae. Some of the chapters include specific measures to prevent and control the infections of global concern. Although the OIE aims to include a chapter for OIE listed disease, not all OIE listed diseases have been covered yet by a specific chapter. This is work in progress, depending on available scientific knowledge and the priorities set by the World Assembly.

Rationale

According to the Glossary, 'listed diseases' means the list of transmissible diseases

agreed by the World Assembly of OIE Delegates and set out in Chapter 1.2. According to Article 1.2.3., OIE list in Chapter 1.2. includes infections and infestations such as infection with Aujeszky's disease virus and infestation of honey bees with *Acarapis woodi*. Therefore, the concept of OIE listed diseases includes infections and infestations.

The 'standards' which have no personality cannot take anything into account.

Aves and Caprinae are names of a class and a subfamily, respectively, but not of families.

C. Specific issues

2) Diagnostic tests and vaccines

It is recommended that ~~The use of~~ the specified diagnostic tests and vaccines in *Terrestrial Code* chapters ~~is recommended~~ are used with a reference to the relevant section in the OIE *Manual of Diagnostic Tests and Vaccines for Terrestrial Animals* (hereafter referred to as the *Terrestrial Manual*). Chapter 1.3. provides a table summarizing the ~~recommended~~ prescribed and alternative diagnostic tests for OIE listed diseases which can be used when the *Terrestrial Code* recommends a testing procedure. Experts responsible for facilities used for disease diagnosis and vaccine production should be fully conversant with the standards in the *Terrestrial Manual*.

Rationale

Rhetorical correction and clarification based on Chapter 1.3.

3) Prevention and control

Chapter 4.5. to 4.11. describe the measures which should be implemented during collection and processing of semen and embryos of animals, including micromanipulation and cloning, in order to prevent animal health risks, especially when trading these commodities. Although the measures relate principally to OIE listed diseases ~~or infections~~, general standards apply to all health risks. Moreover, ~~in~~ Chapter 4.7 covers diseases that are not ~~listed diseases are~~ included in OIE listed diseases and they are marked as such, for the information of Member Countries.

Chapter 4.14. addresses the specific issue of the control of bee diseases and some of its trade implications. This chapter should be read in conjunction with the specific bee disease chapter in Section 9.

Chapter 6.4. is designated for the implementation of general biosecurity measures in intensive poultry production.

Chapter 6.5. gives ~~an examples of~~ recommendations for a specific on-farm prevention and control plan for ~~the non-listed food-borne pathogen~~ *Salmonella* in poultry, which is not included in OIE listed diseases but

food-borne pathogen.

Rationale

See the rationale for 10 of B.

The term of ‘OIE listed diseases’ is preferable to ‘listed diseases’ or ‘non listed’ because it is clearly defined in the Glossary and more understandable for Member Countries.

Chapter 6.5. gives not only an example of but recommendations for a specific on-farm prevention and control plan for *Salmonella* in poultry.

4) Trade requirements

Animal health measures related to international trade should be based on ~~OIE~~ the standards, guidelines or recommendations of the OIE, especially the recommendations on particular aetiological agents for the importation of particular commodities in the *Terrestrial Code*, where they exist. A Member Country may authorise the importation of animals or animal products into its territory under conditions more ~~or less~~ trade-restrictive than ~~those recommended by~~ the recommendations in the *Terrestrial Code*, if there is a scientific justification. To scientifically justify ~~more trade restrictive measures~~ them, however, the importing country should conduct a risk ~~analysis~~ assessment in accordance with ~~OIE standards~~ the *Terrestrial Code*~~, as described in Chapter 2.1~~. Members of the WTO ~~should refer to~~ shall comply with the Agreement on the Application of Sanitary and Phytosanitary Measures in annex 1A of the *Marrakesh Agreement Establishing the World Trade Organization* (SPS Agreement).

Chapter 5.1. to 5.3. describe the obligations and ethical responsibilities of importing and exporting countries in international trade. Veterinary Authorities and all veterinarians directly involved in international trade should be familiar with these chapters. Chapter 5.3. provides OIE procedures relevant to the SPS Agreement including guidance for informal dispute mediation ~~by the OIE~~.

The OIE aims to include an article listing ~~the~~ safe commodities, which ~~that~~ are considered safe for trade without the imposition of pathogenic-specific sanitary measures, regardless of the status of the exporting country or zone for the agent in question, at the beginning of each disease-specific chapter in Section 8 to 15. This is ~~a~~ work in progress and some of the chapters do not yet contain the articles ~~listing safe commodities~~. ~~In those chapters, w~~Where a list of safe commodities is present in the chapter, importing countries should not apply trade restrictions to such commodities with respect to the agent in question.

Rationale

Rhetorical correction and clarification based on the *SPS Agreement* and each relevant chapters

The terms of ‘standards’ and ‘recommendations’ are mixed up together without

clarification in the texts. It may lead to the confusion among Member Countries. The expression of ‘recommendations in the *Terrestrial Code*’ is preferable because OIE trade-related standards are generally provided in a manner like ‘Recommendations for the importation of something’. .

Application by importing countries of less trade-restrictive measures than OIE recommendations has the potential risk of spread of pathogenic agents in question worldwide. Even if it is applicable under the SPS agreement, the OIE should not encourage it, from viewpoint of the purpose of its establishment. Member Countries should comply with the standards of the OIE.

5) International veterinary certificates

~~An i~~International veterinary certificate~~s~~ ~~is an~~ are official document~~s~~ the Veterinary ~~Authority~~ Authorities of ~~an~~ exporting ~~country~~ countries ~~draws up~~ issue in accordance with Chapter 5.1. and 5.2. The c~~C~~ertificates list ~~the~~ animal health requirements and, where appropriate, public health requirements for the exported ~~commodity~~ commodities. The quality of the exporting country’s Veterinary Services is essential in providing assurances to trading partners regarding the safety of exported animals and animal products. This includes the Veterinary Services’ ethical approach to the provision of veterinary certificates and their history in meeting their notification obligations.

International veterinary certificates underpin international trade of animals and animal products and provide assurance to the importing ~~country~~ countries regarding the health status of the animals and animal products imported. The measures should be prescribed ~~should take into account~~ on the basis of the health status of both exporting and importing countries and ~~be based upon~~ the standards in the *Terrestrial Code*.

Rationale

Rhetorical correction and clarification based on the Glossary

According to the Glossary, international veterinary certificate means a certificate, issued in conformity with the provisions of Chapter 5.2., describing the animal health and/or public health requirements which are fulfilled by the exported commodities.

The ‘measures’ which has no personality cannot take anything into account.

6) Guidance notes for importers and exporters

the importing country should list the diseases~~, infections or infestations~~ from which the importing country is justified in seeking protection because of its own health status. Importing countries should not impose measures in regard to diseases that occur in their own territory but are not subject to official control programmes;

Rationale

Rhetorical correction

The second sentence is written from the assumption that the term of 'diseases' includes infections and infestations. The first sentence should be consistent with the second one.

c) when preparing international veterinary certificates, the importing country should endeavour to use terms and expressions in accordance with the definitions given I the Glossary. As stated in Article 5.2.3., international veterinary certificates should be ~~kept as~~ written using terms that are simple, unambiguous and as easy to understand as possible ~~and should be clearly worded~~, to avoid misunderstanding of the importing country's requirements;

Rationale

Rhetorical correction and clarification based on Article 5.2.3.

6) It is recommended that Veterinary Authorities prepare 'guidance notes' to assist importers and exporters in understanding trade requirements. These notes should identify and explain the trade conditions, including the measures to be applied before and after export and during transport and unloading, and the relevant legal obligations and operational procedures. The guidance notes should ~~advise on~~ provide all details to be included in the ~~health certification~~ international veterinary certificates accompanying the consignment to its destination. Exporters should also ~~be reminded of~~ refer to the International Air Transport Association rules governing air transport of animals and animal products, if necessary.

Rationale

Rhetorical correction and clarification

The IATA rules apply only to transport by air.

4. Chapter 5.1 General Obligations related to Certifications

Article 5.1.2.

Responsibilities of the importing country

1) The ~~import requirements included in the~~ *international veterinary certificate*s should assure that *commodities* introduced into the *importing country* ~~comply with~~ have been exported on the basis of the trade-related standards of the OIE. *Importing countries* should ~~align~~ base their requirements ~~with~~ on the recommendations ~~those recommended~~ in ~~the~~ relevant standards of the OIE. If there are no such ~~standards~~ recommendations or if the country ~~choose~~ determines a level of protection requiring measures

stricter than the standards of the OIE, these should be based on ~~an~~ import *risk* ~~*analysis*~~ *assessment*.

Rationale

Rhetorical correction and clarification based on the *SPS Agreement*

The noun of 'requirement' means something that you need or want. Therefore the import requirements cannot assure anything.

Subject to Article 3-1 of the *SPS Agreement*, WTO Members shall base their SPS measures on, but neither comply with nor align them with, international standards.

Subject to Article 5-1 of the *SPS Agreement*, WTO Members can apply appropriate SPS measures based on an assessment of risk but not on risk analysis.

5. Glossary

GLOSSARY

Animal health management

means a system designed to optimise the physical and behavioural health and welfare of *animals*. It includes the prevention, treatment and control of *diseases* and conditions affecting the individual *animal* and *herd*, including the recording of illness, injuries, mortalities and medical treatments where appropriate.

Feed

means any materials (single or multiple), whether processed, semi-processed or raw, which is intended to be fed directly to terrestrial animals (except bees).

Feed ingredient

means a component part or constituent of any combination or mixture making up a feed, whether or not it has a nutritional value in the animal's diet, including feed additives. Ingredients are of plant (including aquatic plants) or terrestrial or aquatic animal origin, or other organic or inorganic substance.

Rationale

The term of 'animal health management' has already defined in 2 chapters of the *Terrestrial Code* (Chapter 7.9. and 7.10). Key terms used in more than one chapter in the *Terrestrial Code* should be defined in the Glossary. The text is completely the same as one currently proposed by the Code Commission in draft Chapter 7.X. on welfare of working equids.

The terms of 'feed' and 'feed ingredient' would be defined in two chapters (draft

Chapter 6.X. and Chapter 6.3.). The texts are completely the same as those currently proposed by the Code Commission in draft Chapter 6.X. on prevention and control of *Salmonella* in pig herds.

6. Chapter 3.2 Evaluation of Veterinary Services

Article 3.2.14.

7. Veterinary legislation, regulations and functional capabilities

7) Export and import inspection

i) Assessment of the adequacy and implementation of relevant national legislation concerning:

(the third paragraph)

- animal health~~, *animal welfare*~~ and veterinary public health controls of the export and import *animals*, animal genetic material, animal products, animal feedstuffs and other products subject to veterinary inspection;

Rationale

Since whether or not the import restrictions related to animal welfare are justified under WTO Agreement is controversial and should be discussed in the framework of WTO, the OIE Code should not prejudge the international discussion.

7. Draft Chapter 6.X. Prevention and Control of *Salmonella* in Pig Herds

Article 6.X.1.

Introduction

Nontyphoidal salmonellosis is one of the most common food-borne bacterial diseases in the world with *Salmonella* Enteritidis and *S*. Typhimurium which are ~~the predominant serotype~~ identified as the predominant serotypes in most countries.

Rationale

Rhetorical correction

Article 6.X.2.

Purpose and scope

The purpose of this chapter is to provide ~~To combat the occurrence of food-borne salmonellosis, a~~ pre-harvest pathogen reduction strategies ~~strategy can assist in~~ for reducing the presence of *Salmonella* in pig *meat* in order to combat the occurrence of food-borne salmonellosis.

Rationale

Rhetorical correction because this Article does not provide any purpose of this chapter.

Article 6.X.3.

Surveillance in pig herds for *Salmonella*

Where justified by risk assessment, regular surveillance should be carried out to in accordance with Chapter 1.4. of the *Terrestrial Code* to identify the occurrence and distribution of *Salmonella* in pig herds. Surveillance data will provide information to assist the Competent Authorities in their decision making regarding the requirement for, and design of, control programmes. ~~Sampling and testing methods, frequency and type of samples required should be determined by the *Veterinary Services* based on the *risk assessment*.~~

Rationale

Since surveillance is very important to control *Salmonella* in pig herds, specific standards are necessary for it. Although the purpose of this chapter is not animal health control, the specific standards of animal health surveillance in Chapter 1.4. can apply to this chapter. Sampling and testing methods, frequency and type of samples required should also be decided according to Chapter 1.4.

~~Article 6.X.4.~~

~~**Definitions**~~

~~**Feed**: means any material (single or multiple), whether processed, semi-processed or raw, which is intended to fed directly to terrestrial animals (except bees).~~

~~**Feed ingredient**: means a component part or constituent of any combination or mixture making up a feed, whether or not it has a nutritional value in the animal's diet, including feed additives. Ingredients are of plant (including aquatic plants) or terrestrial or aquatic animal origin, or other organic or inorganic substance.~~

Rationale

The terms of 'feed' and 'feed ingredient' would be defined in two chapters (this chapter and Chapter 6.3.). Key terms used in more than one chapter in the *Terrestrial Code* should be defined in the Glossary.

Article 6.X.5.

Prevention and control measures

Article 6.X.6. to 6.X.14. provide recommendations for the prevention and control of *Salmonella* which apply to indoor pig production at herd level. Contamination of pig *meat* can be reduced by measures taken during the *slaughter* process. Reduction of *Salmonella* in pigs entering the *slaughterhouse/abattoir* enhances the effectiveness of such measures.

Rationale

We assume from the descriptions of draft Article 6.X.18 that the Code Commission intend to provide the recommendations to apply to indoor pig production.

Article 6.X.6

Biosecurity measures

7) Cleaning and *disinfection* procedures for pig housing, general equipment, transportation equipment and animal walkways. The cleaning and *disinfection* procedures for pig housing after emptying should include at least feeders, drinkers, floor, walls, aisles, partitions between pens, and ventilation ducting. All visible organic material should be removed before *disinfection* with a suitable ~~*disinfectant*~~ disinfectant at an effective concentration. ~~*Disinfectants*~~ Disinfectants should be used in accordance with Chapter 4.13.

Rationale

The term of ‘disinfectant’ is not defined in the Glossary.

8) Procedures for the control of vermin such as rodents and arthropods ~~should be in place~~ and regular checks ~~should be~~ carried out to assess effectiveness. When the presence of vermin is detected timely control actions should be taken to prevent the development of unmanageable populations; for example, the placement of baits for rodents where they are nesting.

Rationale

The first sentence should be a noun phrase grammatically.

10) Biosecurity measures applied to all personnel and visitors entering the *establishment*. This should include hand washing and changing into clean clothes and footwear provided by the *establishment*. Similar precautions are recommended when they move ~~moving~~ between separate *epidemiological units* on large

farms.

Rationale

A subject in a participial construction is omissible only when the subjects in the main clause and the subordinate clause are the same.

11) *Vehicles* and equipment identified as a *risk* in the biosecurity plan should be cleaned and ~~*disinfected*~~ disinfected before entering the *establishment*.

Rationale

The term of ‘disinfected’ is not defined in the Glossary.

Article 6.X.7.

Facility design

Good design of pig units facilitates the ~~management and~~ control of pathogens.

It is recommended that ~~facility design consider~~ the following be considered to design the facilities:

1) Locations of other ~~livestock~~ *establishments* ~~in relation to wild bird and rodent populations~~;

8) Prevention of entry of ~~wild birds, rodents and~~ *wild life* ~~*feral animals*~~

9) Locations of delivery and collection points away from pig housing or feed storage.

Rationale

We do not understand the differences in meaning between ‘the management of pathogens’ and ‘the control of pathogens’. If ‘the management of pathogens’ include the treatment, transport and stock of pathogens, pig farms usually control pathogens but not manage them.

The ‘facility design’ which has no personality cannot consider anything.

Given that the term of ‘*establishments*’ is defines as the premises in which *animals* are kept and the term of ‘animal’ as mammal, bird or bee, we do not understand what premises means the ‘other livestock *establishments* in relation to wild bird and rodent populations’. The proposed establishments would be ‘the other livestock premises in which mammals, birds or bees are kept in relation to wild bird and rodent population’.

Prevention of entry of only rodents and feral animals but also other wild animals such as fox is necessary to control *Salmonella*.

Article 6.X.8.

Feed

Salmonella-contaminated feed and feed ingredients are known to be important sources of infection for pigs. Therefore, feed and feed ingredients should be produced, handled, stored, transported and distributed according to Good Manufacturing Practices, ~~considering~~ Hazard Analysis Critical Control Points (HACCP) principles and the recommendations in ~~accordance with~~ Chapter 6.3.

For the effective control of Salmonella it is recommended that:

1) Feed and feed ingredients ~~should~~ come from monitored sources~~.~~;

2) Heat treated feeds ~~are used and~~ ,which may ~~also~~ include ~~the addition of~~ bactericidal or bacteriostatic treatments, e.g. organic acids, be used~~.~~; Where heat treatment is not possible, the use of bacteriostatic or bactericidal treatments or processes ~~should~~ be considered~~.~~;

3) Cooling systems and dust control in feed ingredient processing plants and compound feed mills ~~should~~ be managed to avoid recontamination of feed and feed ingredients with *Salmonella*~~.~~;

4) Feed ~~should~~ be stored and transported in a hygienic manner that prevents exposure to possible residual *Salmonella* contamination~~.~~;

5) Access to feed by wild birds and rodents ~~should~~ be prevented~~.~~;

6) Spilled feed ~~should~~ be cleaned up immediately to remove attractants for wild birds, rodents and other pests.

Rationale

Rhetorical correction

Article 6.X.9.

Water

For the effective control of Salmonella it is recommended that:

1) The drinking water supply be monitored and controlled to maintain it free from Salmonella contamination~~.~~;

2) Water holding tanks ~~are~~ be enclosed~~.~~;

3) The water delivery system ~~is~~ be regularly cleaned and disinfected~~.~~; For example in an ‘all-in-all-out’ system

this ~~would~~ occur before restocking.

Rationale

Rhetorical correction

Article 6.X.10.

Feed composition

Where *Salmonella* is present in pig *herd*, the composition of feed may influence the occurrence of *Salmonella* in individual pigs. For the effective control of *Salmonella* it is recommended that:

4) Feed ~~should~~ be coarsely ground~~.~~:

5) Where feed is wheat based, ~~reducing~~ the proportion of wheat be reduced, which may reduce the occurrence of *Salmonella* in pigs~~.~~

6) Coarsely ground material ~~may~~ be added to pelleted feed.

Rationale

Rhetorical correction

The sentence of 'coarsely ground material may be added to pelleted feed' is not a form of recommendation.

Article 6.X.11.

Pig flow management

The movement and mixing of pigs increase the risk of spread of *Salmonella*. For the effective control of *Salmonella* it is recommended that:

1) The number of pig movements and mixing of pigs between weaning and dispatch for slaughter ~~should~~ be minimised~~.~~:

2) If possible, the 'all-in-all-out' system with a single age group of pigs ~~principle should~~ be used~~.~~: In particular, the addition to younger groups of pigs held back from older groups should be avoided.

Rationale

Rhetorical correction

We do not understand what is the ‘all-in-all-out’ single age group principle. The principle is unfamiliar but not defined in the *Terrestrial Code*. Since the OIE Codes are international standards, they should be written in clearly understandable expressions.

Article 6.X.12.

Management of new pig introductions

To minimise the risk of new introductions of *Salmonella* in replacement pigs in *herd*, it is recommended that:

1) There ~~is~~ be good communication along the pig production chain to ensure that steps are taken to minimise the introduction and dissemination of *Salmonella*~~.~~;

2) A closed *herd* policy ~~is applied~~ with which t~~he introduction of~~ new genetic material is introduced in by semen only be applied~~.~~;

3) The number of separate sources for both replacement breeding stock and rearing pigs ~~are~~ be as few as possible~~.~~;

4) Newly introduced pigs ~~are~~ be kept separate from the rest of the herd for a suitable period before incorporating with other pigs, e.g. four weeks~~.~~;

5) Replacement breeding pigs ~~are of~~ be introduced from a similar *Salmonella* status *herd* to ~~that of~~ the *herd*~~.~~; for example a *Salmonella* free ~~*herd*~~ farm ~~should~~ source replacements from *Salmonella* free *herds*; or ~~*herds*~~ farms that are free of specific *Salmonella* serotypes such as *S*. Typhimurium ~~should~~ avoid introducing pigs from breeding *herds* infected with such serotypes~~.~~;

6) Where appropriate, pooled faecal samples from introduced pigs ~~are~~ be taken to assess their *Salmonella* status.

Rationale

Rhetorical correction

Given that *herd* is defined in the Glossary as a number of animals of one kind kept together under human control or a congregation of gregarious wild animals, the *herd* which has no personality cannot source or avoid anything. The farm which has legal personality is preferable.

Article 6.X.14.

Pig treatments

1) *Antimicrobial agents* may modify normal flora in the gut and increase the likelihood of colonisation by

Salmonella. If antimicrobial agents are used for the control of ~~clinical~~ *infections* in pigs, they should be used in accordance with Chapter~~s 6.7.,~~ ~~6.8.~~,6.9. ~~and 6.10.~~

~~*Antimicrobial agents* should not be used to control subclinical *infection* with *Salmonella* in pigs because the effectiveness of the treatment is limited and can contribute to the development of antimicrobial resistance.~~

Rationale

We do not reject the view that antimicrobial agents should not be used to control subclinical infection with *Salmonella* in pigs. Given that we have already had Chapter 6.9 on responsible and prudent use of antimicrobial agents and taking into account that *Salmonella* is a typical bacterium in the livestock sector, however, it is preferable that such view be reflected in Chapter 6.9. In that case, the first paragraph would include the stuff of second paragraph.

Only Chapter 6.9 includes recommendations related to the use of antimicrobial agents; Chapter 6.7 is for harmonisation of national antimicrobial resistance surveillance and monitoring programmes; Chapter 6.8 is for monitoring of the quantities and usage patterns of antimicrobial agents used in food-producing animals; Chapter 6.10 is for risk assessment for antimicrobial resistance arising from the use of antimicrobials in animals.

2) *Vaccination* against *Salmonella infection* may be used as a part ~~a~~ of *Salmonella* control programme~~s~~. Vaccine~~s for *Salmonella*~~ ~~production and use~~ should be produced in accordance with Chapter 2.9.2. of the *Terrestrial Manual*.

Rationale

Rhetorical correction and clarification

The vaccines should be used in accordance not with Chapter 2.9.2 of the *Terrestrial Manual* but with Chapter 6.7 and this chapter.

~~Article 6.X.15.~~

~~**Transportation**~~

~~The relevant recommendations in Chapter 7.3. apply.~~

Rationale

It is obvious that the relevant recommendations not only in Chapter 7.3. but also in

Chapter 7.2. and 7.4. apply to the transportation of pigs, because it is clearly provided in these chapters. Since the purpose of this chapter and those of the chapters on animal welfare are different, however, it is inappropriate to provide the mutual reference in this chapter, from viewpoint of a theory of law. Chapter 7.3. does not contribute to reduce *Salmonella* in pig herds.

8. Draft Chapter 7.X. Animal Welfare and Dairy Cattle Production Systems

Article 7.X.5.

Provisions for good animal welfare

1. Recommendations on system design and management including physical environment

8) Air quality

(the second paragraph).

Proper ventilation is important for effective heat dissipation in cattle and to prevent the build-up of effluent gases (e.g. ammonia and hydrogen sulphide), including those from manure, and dust in the housing unit. The ammonia level in enclosed housing should not exceed 25 ppm. ~~A useful indicator is that if air quality is u~~Unpleasantness ~~for~~ of humans ~~it~~ is a useful indicator of ~~also likely to be a~~ air quality problems of facilities ~~for cattle~~.

Rationale

Rhetorical correction and clarification

2. Recommendations on stockmanship and animal management

a) Biosecurity and animal health

i) Biosecurity and disease prevention

~~For the purpose of this chapter, biosecurity means a set of measures designed to maintain a herd at a particular health status and to prevent the entry or spread of infectious agents.~~

Rationale

According to the current texts proposed by the Code Commission, the term of ‘biosecurity’ would be defined in the Glossary.

ii) Animal health management

~~For the purpose of this chapter, animal health management means a system designed to optimise the physical and behavioural health and welfare of the dairy *herd*. It includes the prevention, treatment and control of diseases and conditions affecting the herd (in particular mastitis, lameness, reproductive and metabolic diseases).~~

Rationale

The term of 'animal health management' has already defined in 2 chapters of the *Terrestrial Code* (Chapter 7.9. and 7.10). Key terms used in more than one chapter in the *Terrestrial Code* should be defined in the Glossary.

(the third paragraph)

At national or regional level there should be programmes to gather records and monitor diseases of importance for animal welfare.

Rationale

It is important to gather records and monitor diseases for animal health managements. Japan would like to put this sentence back in this article.

9. Draft Chapter 7.X. Welfare of Working Equids

Article 7.X.2.

Scope and definition

This chapter applies to ~~the following~~ working equids as defined below. ~~animals:~~

Working equids means horses, mules and donkeys which are used for traction of coach, carts or farming or engineering equipment ~~and~~ or transport of people and farm products, woods or other goods ~~, for income generation as well as domestic use (non-commercial work)~~ in public, commercial or domestic activities including farm works, taxi services, construction and tourism. Equids used in racing, sports or competitions, leisure riding or research are excluded.

Harness means all parts of the driving harness, saddle, bridle and bit which work to control the working equid, act as a braking system when pulling a cart, hold loads in place and transfer power to attached carts or agricultural implements.

Rationale

Rhetorical correction and clarification based on the draft preamble of this chapter, because there is no definition in the original proposed text.

The ‘income generation’ is an indirect result of using working equids, which does not define working equids. The ‘domestic use’ is lack of concreteness.

Japanese proposed definition on harness is originated from the text proposed by the Code Commission of Article 7.X.13.-2 on harnessing of this chapter.

Article 7.X.3.

Responsibilities and competencies

1. Veterinary Authority

~~The~~ *Veterinary Authority* ~~is the responsible~~ has the responsibility and competence for ensuring or supervising the implementation of animal health and welfare measures. In the case of working equids, the responsibility may be shared with other government agencies, local government authorities, private sector veterinarians, non-government organisations and owners and users ~~and institutions as listed below and including~~ but is not limited to those responsible for agriculture and transport.

Rationale

Rhetorical correction and clarification

Veterinary Authority is defined in the Glossary as the Government Authority of a Member Country, comprising veterinarians, other professionals and para-professionals, having the responsibility and competence for ensuring or supervising the implementation of animal health and welfare measures, international veterinary certification and other standards and recommendations in the Terrestrial Code in the whole territory.

5. Non-governmental organisations

Non-governmental organisations (NGOs) and intergovernmental organisation should understand the role of working equids and may help to collect and provide information to support policy formation, and to advocate ~~for~~ and promote health and welfare of working equids.

Rationale

Rhetorical correction

Article 7.X.4.

Criteria or measurables for the welfare of working equids

1. Behaviour

Presence or absence of certain equine behaviours could indicate an *animal welfare* problem, including fear, depression or pain. Non-specific behavioural indicators of pain include aggression, restlessness, agitation, a reluctance to move and a lowered head carriage. Other behaviours ~~have~~ has been well documented (at least for horses) for abdominal, limb and dental pain (Ashley *et al*., 2005). Behaviours differs between ~~donkeys,~~ horses, ~~and~~ mules and donkeys and a good understanding of normal behaviour of each species is required.

Some behaviour may indicate an *animal welfare* problem but may not be uniquely indicative of one type of problems. They may be exhibited for a variety of different welfare causes. Depression, apathy, dullness and lethargy in equids which are usually active and alert, can be indicative welfare problems. Decreased feed intake might also be an indicator of dental problems, poor feed quality or feed contamination. A variety of other behaviour may also be observed in working equids.

Behaviour indicating discomfort or pain is the following:

- Head pressing, stable walking, weaving, teeth grinding, grunting, food dropping, and inability to eat normally. Such behaviour may indicate disease process, abdominal or cranial pain;

- Depression, circling, foot pawing, flank watching, inability to stand up, trashing, rolling. Such behaviour may indicate abdominal or other discomfort;

- Disturbance of ground or bedding. Such behaviour may indicate disease process, abdominal pain, malnutrition;

- Weight shifting, foot pawing, reluctance to move or abnormal movement. Such behaviour may indicate leg, foot or abdominal pain;

- Head shaking or avoidance of head contact. Such behaviour may indicate head, ear or ocular discomfort;

- Itching and rubbing. Such behavior may indicate skin problems and *infestation*;

- Restlessness, agitation and anxiety, rigid stance and reluctance to move, lowered head carriage, fixed stare and dilated nostrils, clenched jaw, aggression and reluctance to be handled. Such behavior may indicate non-specific pain in horses, but is more subtle and may not be recognised in donkeys;

- Vocalization, rolling, kicking at abdomen, flank watching, stretching. Such behaviour may indicate abdominal pain in horses and dullness and depression in donkeys;

- Weight-shifting, limb guarding, abnormal weight distribution, pointing, hanging and rotating limbs, abnormal movement, reluctance to move. Such behaviour may indicate limb and foot pain in horses, but is more subtle and less indicative than repeated episodes of lying down in donkeys;

- Headshaking, abnormal bit behaviour, altered eating; anorexia, quidding, food pocketing. Such

behaviour may indicate head and dental pain;

Behaviour indicating fear or anxiety is the following:

- Avoidance of humans, especially when handlers or objects associated with their handling come close;

- Reluctance to engage in their use for traction or transport or even a cessation and aggressive behaviour especially when fitting equipment or loading is undertaken.

Rationale

Japanese proposed texts are originated form those proposed by the Code Commission of Article 7.X.10 of this chapter but amended due to rhetorical reason and for clarification. The ‘discharges’ and ‘self-inflicted abrasions’ are deleted from the original texts because they are not behaviour. Since ‘pain’ is also not behavior, the related texts are amended rhetorically.

5. Physical appearance

Observation of physical appearance ~~will~~ often provides an indication of animal health and welfare. Attributes of physical appearance that may indicate compromised welfare of working equids include:

- Abnormal ~~behaviour,~~ postures ~~and gait~~.

Rationale

The ‘abnormal behaviour’ and ‘gait’ are included in other measurables: behaviour (item 1) and lameness (item 8), respectively.

6. Handling responses

Poor human-animal interactions can lead to improper handling. This may include inappropriate driving and restraint methods such as the use of whips and sticks, and can result in fear and distress. Indicators could include:

- ~~Injures to animals resulting from improper handling~~.

Rationale

The ‘injuries’ are a state of an animal and an indicator of physical appearance (item 5), but a reaction to improper handling.

7. Complications due to management practices

(the second paragraph)

It is important to note that some “management practices” such as firing, nasal slitting, lampas cutting and harmful substances put on wounds are not based on evidence and are inherently bad for ~~welfare~~ *animal welfare*. ~~Evidence of firing, nasal slitting, lampas cutting and harmful substances put on wounds should be identified as indicators of poor welfare.~~

Rationale

This article is supposed to provide indicators of but not recommendations on *animal welfare*. In addition, the “management practices” are activities to compromise *animal welfare* but not indicators of poor welfare.

(the third paragraph)

Working equids are shod for two main reasons; to prevent hoof wear and to improve performance. Many working equids cope well without shoes and, if they are coping well, most are best unshod. However, poor hoof care and farriery predisposes the working equids to injury and infection, and can result in changes to the size, shape and function of the hoof. Untreated abnormalities of the foot can create long term problems in other parts of the leg due to change in gait and weight bearing.

Rationale

Japanese proposed texts are originated form those proposed by the Code Commission of Article 7.X.13 on farriery of this chapter.

8. Lameness (Gait)

Traditionally, lameness has been defined as any alteration of the horse’s gait. In addition, lameness can be manifest in such ways as a change in attitude or performance. These abnormalities can be caused by pain in the neck, withers, shoulders, back, loin, hips, legs or feet. Identifying the source of the problem is essential to proper treatment (AAEP, 2014). Lameness or gait abnormalities are the most common presenting signs of working equids to *veterinarians*. Ninety to ninety nine per cent of working equids may have hoof and limb problems (Burn *et al*., 2010; Pitchard *et al*., 2005) such as hoof conformation abnormalities and hoot pastern axis and agles.

~~Indicators of such problems could include:~~

~~- hoof conformation abnormalities,~~

- ~~unequal weight bearing,~~

- ~~hoot pastern axis and angles,~~

- ~~lameness grades: There are various gait or lameness scoring systems, an examples is one developed by the American Association of Equine Practitioners (AAEP).~~

~~The scale ranges from zero to five, with zero being no perceptible lameness, and five being most extreme:~~

~~0: Lameness not perceptible under any circumstances.~~

~~1: Lameness is difficult to observe and is not consistently apparent, regardless of circumstances (e.g. under saddle, circling, inclines, hard surface, etc.)~~

~~2: Lameness is difficult to observe at a walk or when trotting in a straight lien but consistently apparent under certain circumstance (e.g. weight-carrying, circling, inclines, hard surface, etc.)~~

~~3: Lameness is consistently observable at a trot under all circumsances.~~

~~4: Lameness is obvious at a walk.~~

~~5: Lameness products minimal weight bearing.~~

Rationale

Hoof conformation abnormalities and hoof pastern axis and angles are not indicators of hoof and limb problems but the very things of the problems.

Unequal weight bearing is an indicator of hoof and limb problems but not an indicator of lameness. This item would be supposed to provide indicators of lameness but not of hoof and limb problems.

Since there are various gait or lameness scoring systems, it is inappropriate for the OIE Codes to exemplify a certain scoring system as if it were the international standard endorsed by the OIE. In addition, since lameness grades are not necessarily proportionate to the degrees of animal welfare problems, it is unnecessary to provide the score ranges in this article, for the purpose of this chapter.

9. Fitness to work

Fitness to work is defined ~~at~~ as the state or condition of being physically sound and healthy, especially as a result of exercise and proper nutrition, to perform work well (Saunders Comprehensive Veterinary Dictionary, 3 ed. Elsevier).

Indicators ~~of an equid's~~ to know the inability of working equids to carry out the work demanded of ~~it~~ them

include the presence of heat stress,–lameness, poor body condition or weight loss, harness-related wounds and aversive behavioural responses to, for example, harness or equipment fitting.

Rationale

Rhetorical correction and clarification

Article 7.X.6.

Nutrition, feeding and watering

(the 7th paragraph)

Outcome-based measurables: behaviour, ~~mortality and~~ morbidity ~~rates~~, mortality, ~~behaviour, changes in weight and~~ body condition, ~~fitness to work,~~ physical appearance (dehydration ~~(~~as measured by drinking behaviour), fitness to work~~, signs of heat stress~~.

Rationale

According to Article 7.X.5. of this chapter, the lists of outcome-based measurables of each recommendation are supposed to be derived from Article 7.X.4. of this chapter.

The measurables of “mortality and morbidity rates”, “changes in weight” and “signs of heat stress” are not described in Article 7.X.4. of this chapter. The “dehydration” is one of the attributes of physical appearance.

For the convenience of users of the *Terrestrial Code*, the order of the measurables and the items in Article 7.X.4. of this chapter should be the same.

Article 7.X.7.

Shelter and ~~: homestead housing, workplace shelter, environmental considerations,~~ protection from ~~predators~~ other animals

Rationale

Simplification and clarification of the title

1. Heat stress

Heat stress is a common condition in working equids which are often working in hot, humid environments and *animal handlers* should be aware of the risk that heat stress poses. ~~Equids~~ owners and ~~handlers~~

animal handlers of working equids should be aware of how to ~~prevent~~ cope with it ~~through~~. It includes provision of appropriate shade or shelter along with sufficient drinking water (The Brook, 2013). The ~~O~~owners and *animal handlers* should ~~may also~~ be trained in effective treatment of hyperthermia ~~as~~ if timely veterinary assistance ~~may~~ is not ~~be~~ available.

Behaviours which indicate the suffering from heat stress include increased respiratory rate and effort; flared nostrils; increased head movement and lack of response to environment (Pritchard *et al*., 2006)

Outcome-based measurables: ~~largely~~ behavioura~~l, including: increased respiratory rate and effort; flared nostrils; increased head movement and lack of response to environment (Pritchard *et al*., 2006).~~

Rationale

It is actually impossible to prevent heat stress, especially in tropical countries.

According to Article 7.X.5. of this chapter, this article should provide recommendations but not facts on training of the owners.

The “increased respiratory rate and effort”, “flared nostrils”, “increased head movement” and “lack of response to environment” are not the outcome-based measurables provided in Article 7.X.4. of this chapter but indicators of the suffering from heat stress.

2. Cold stress

Protection from extreme cold weather conditions should be provided when these are likely to create a serious risk to the welfare of working equids~~, particularly of neonates and young animals and others that are physiologically compromised~~. Such protection could be provided by natural or man-made shelter structures. Care ~~must~~ should be taken to ensure that, in attempt to ~~protect against~~ cope with the cold, ventilation and air quality are not compromised. *Animal handlers* of working equids should also ensure that the equids have access to adequate feed and water during cold weather (The Brooke WEVM, 2013).

Behaviour which indicate the suffering from cold stress include huddling.

Outcome-based measurables: behaviour, mortality ~~rates~~, physical appearance~~, behaviour including~~ (abnormal posture) ~~and huddling~~.

Rationale

According to Article 7.X.2. of this chapter, this chapter applies to working equids which are used for traction and transport, for income generation as well as domestic use (non-commercial work). Neonates and young animals and others that are physiological compromised should not be used for such works, from the viewpoint of *animal welfare*. Therefore they are not come under the definition of

working equids and not covered by this chapter.

The “huddling” is not an outcome-based measurable provided in Article 7.X.4. of this chapter but an indicator of the suffering from cold stress. The “abnormal posture” is one of the attributes of physical appearance.

3. Protection ~~against~~ from predators and injury

~~Good shelter is required to keep~~ Working equids should be kept safe from predators and from road accidents, which are ~~a~~ common occurrences if equids are left free to roam. If working equids are housed alongside ~~other domestic livestock~~ horned cattle, care ~~must~~ should be taken to protect them from injury by ~~horned cattle~~ their horns.

Outcome-based measurables: behaviour, morbidity (injury rate), ~~and~~ mortality ~~rates~~, physical appearance~~, behaviour~~.

Rationale

According to Article 7.X.5. of this chapter, this article should provide recommendations.

Article 7.X.8.

Biosecurity plan and animal health management ~~**Disease and injury management: management of endemic disease, infectious disease, work-related wounds and injuries, planning for disease outbreaks, health service provision**~~

Rationale

Simplification and clarification of the title

1. Biosecurity plan ~~and disease prevention~~

~~For the purpose of this chapter, biosecurity means a set of measures designed to maintain an equid population or herd at a particular health status and to prevent the entry or spread of infectious agents. Biosecurity plans~~ *Biosecurity plans* should be designated, ~~and~~ implemented and maintained, commensurate with the best possible ~~desired~~ health status of the equid population or *herd*, available resources and infrastructure, and current ~~disease risk~~ *disease risk* and for *listed diseases*, in accordance with relevant recommendations of the *Terrestrial Code*. These ~~biosecurity plans~~ *biosecurity plans* should address the control of the following major sources and pathways for spread of pathogens:

a) equids,

b) other *animals* and ~~disease vectors~~ *vectors*,

c) people

d) equipment (e.g. harnessing, handling and grooming equipment, feeding utensils),

e) ~~vehicles~~ *vehicles*,

f) air,

g) water supply,

h) feed.

Outcome-based measurables: morbidity ~~rate~~, mortality ~~rate~~, ~~reproductive efficiency, changes in~~ body condition.

Rationale

Consistency with the draft Chapter 7.X. on animal welfare and dairy cattle production systems

According to the current texts proposed by the Code Commission, the term of 'biosecurity' would be defined in the Glossary, and the term of 'biosecurity plan', 'disease', 'risk', 'vector' and 'vehicle' have already been in the Glossary.

According to Article 7.X.4. of this chapter, the 'reproductive efficiency' is not an outcome-based measurables for the welfare of working equids.

2. Animal health management

Health is a major component of the welfare of an animal, as an animal in poor health is necessarily in a state of decreased well-being.

~~Animal health management means a system designed to optimise the physical and behavioural health and welfare of the working equid. It includes the prevention, treatment and control of diseases and conditions affecting the individual animal and herd, including the recording of illness, injuries, mortalities and medical treatments where appropriate.~~

There should be an effective ~~national~~ programme for the prevention and treatment of working equid *diseases* and conditions, formulated in consultation with a *veterinarian*, where appropriate, with clear roles and responsibilities defined for official and private animal health service personnel as well as for owners.

Those responsible for the care of working equids should be aware of ~~the~~ early specific signs of ~~ill-health~~ *disease* or distress such as coughing, ocular discharge and changes in locomotory behaviour, and non-specific signs such as reduced feed and water intake, changes in weight and body condition, changes

in behaviour or abnormal physical appearance.

Working equids ~~Animals~~ at higher ~~risk~~ *risk* of *disease* or distress will require more frequent inspection by *animal handlers*. If *animal handers* suspect the presence of a disease or are not able to correct the causes of ~~ill-health~~ *disease* or distress, ~~or if suspect the presence of a reportable *disease*~~ they should seek advice from those having training and experience, such as *veterinarians* or other qualified advisers, as appropriate.

Vaccinations and other treatments administered to working equids should be carried out ~~undertaken~~ by *veterinarians* or other people skilled in the procedures and on the basis of veterinary or other expert advice.

Animal handlers should be competent ~~have experience~~ in ~~recognising and~~ managing chronically ill or injured equids, ~~including~~ for instance in recognising and dealing with those that are non-ambulatory. Veterinary advice should be sought as appropriate.

Non-ambulatory working equids should have access to feed and water at all times and be provided with concentrated feed at least once daily and hay or forage *ad libitum*. They should not be transported or moved unless absolutely necessary for treatment or diagnosis. Such movements should be done carefully using methods avoiding dragging or excessive lifting.

~~When treatment is attempted, equids that are unable to stand up unaided and refuse to eat or drink should be euthanized according to the methods indicated in Chapter 7.6., as soon as recovery is deemed unlikely.~~

Outcome-based measurables: behaviour, morbidity ~~rate~~, mortality ~~rate~~, ~~reproductive efficiency, behaviour,~~ body condition, physical appearance~~, and changes in body condition~~.

Rationale

Consistency with the draft Chapter 7.X. on animal welfare and dairy cattle production systems

The term of ‘animal health management’ has already defined in 2 chapters of the *Terrestrial Code* (Chapter 7.9. and 7.10). Key terms used in more than one chapter in the *Terrestrial Code* should be defined in the Glossary.

According to Article 7.X.4. of this chapter, the ‘reproductive efficiency’ is not an outcome-based measurable for the welfare of working equids.

The recommendations on euthanasia should be moved to Article 7.X.11 on end-of-life issues of this chapter.

(the 10th paragraph)

~~Health is a major component of the welfare of an animal, as an animal in poor health is necessarily in a state of decreased well-being. Health may be assessed by:~~

~~a) The general appearance of the equid~~

~~This is a simple to evaluate and revealing parameter, it suffices to observe the posture and demeanour of the animal, its body condition, and the appearance of its cost.~~

~~b) The absence of injury~~

~~A wounded animal is suffering. Pain from wounds decreases welfare. Injuries may result from inappropriate external factors; they may result from a poorly adapted environment (e.g. hobble wounds or harness wounds), they may also be indicative or poor human-animal interactions.~~

~~c) The absence of disease~~

~~Evolution of diseases: *disease* patterns change with time and in working equids, overt clinical signs of infectious disease may often be difficult to detect. More commonly seen are multi-factorial syndromes or conditions involving multiple pathogens as well as environmental and management factors.~~

~~d) The effects of stress~~

~~Stress has a deleterious effect on the immune system; a high incidence of disease may be indicative of too much stress.~~

Rationale

Health is one of the biggest challenges for human beings. The proposed assessment of health does not provide even the definition of health and is too much simplified and coarse as a standard of the OIE. In addition these texts are unnecessary in this article, for the purpose of this chapter.

Article 7.X.9.

Handling ~~and driving~~ practice~~, handling facilities, personnel expertise and training, mutilations and other management practice~~

Rationale

Simplification of the title

(the third paragraph)

~~Education of *veterinarians* on working equid health, handling, use and management is currently inadequately covered in most veterinary curricula and training programmes for drivers and operators and this should be addressed if such people are to fulfil their responsibility to train others.~~

Rationale

Since education of veterinarians is various among Member Countries, it is inappropriate to generalize it in the standards of the OIE.

(the 7th paragraph)

Equipment used to hobble ~~must~~ should be designed for hobbling. The parts of the hobbles which are in contact with the skin should not be made from material that causes pain or injury (Burn *et al*., 2008).

Rationale

Rhetorical correction

(the 9th paragraph)

Outcome~~-~~based measurables: behaviour, ~~mortality and~~ morbidity ~~rates~~, mortality, physical appearance (firing, harness and hobbling wounds~~ and lameness~~), lameness ~~behavioural signs~~.

Rationale

According to Article 7.X.4. of this chapter, the 'lameness' is an independent outcome-based measurable for the welfare of working equids.

Article 7.X.10.

Behaviour and social interactions

Natural behaviour~~s~~ and social interactions differ between horses, mules and donkeys~~., and~~ It is recommended that *animal handlers* be familiar ~~a familiarity~~ with normal and abnormal behaviour of each type of working equid~~s~~ ~~is recommended~~ in order to interpret the welfare implications of what they are observing ~~is being observed~~.

Rationale

Rhetorical correction and clarification

(the second paragraph)

Some behaviours may indicate an *animal welfare* problem but may not be uniquely indicative of one type of problem; they may be exhibited for a variety of different welfare causes. Depression, apathy, dullness and lethargy in equids which are usually active and alert, can be indicative a welfare problem, especially a decreased feed intake. This might also be an indicator of dental problems; poor feed quality or even feed contamination.

A variety of other behaviours may also be observed in working equids.

Behaviours indicating discomfort or pain such as:

- Head pressing, stable walking, weaving, teeth grinding, grunting, food dropping, and inability to eat normally. Such behaviour may indicate disease process, abdominal or cranial pain.

- Depression, circling, foot pawing, flank watching, inability to stand up, trashing, rolling. Such behaviour may indicate abdominal or other discomfort.

- Disturbance of ground or bedding. Such behaviour may indicate disease process, abdominal pain, malnutrition.

- Weight shifting, foot pawing, reluctance to move or abnormal movement. Such behaviour may indicate leg, foot or abdominal pain.

- Head shaking, discharges or avoidance of head contact. Such behaviour may indicate head, ear or ocular discomfort.

- Itching, rubbing, self-inflicted abrasions. Such behavior may indicate skin problems, parasites.

- Non-specific pain in horses: restlessness, agitation and anxiety, rigid stance and reluctance to move, lowered head carriage, fixed stare and dilated nostrils, clenched jaw, aggression and reluctance to be handled. In donkeys these behaviours are more subtle and may not be recognised.

- Abdominal pain in horses: vocalization, rolling, kicking at abdomen, flank watching, stretching. In donkeys, dullness and depression.

- Limb and foot pain in horses: weight shifting, limb guarding, abnormal weight distribution, pointing, hanging and rotating limbs, abnormal movement, reluctance to move. These signs are more subtle in donkeys, although repeated episodes of lying down are reportedly more indicative.

- Head and dental pain: headshaking, abnormal bit behaviour, altered eating; anorexia, quidding, food pocketing. (Ashley *et al.*, 2005).

Behaviours indicating fear or anxiety such as:

- Avoidance of humans, especially when handlers or objects associated with their handling come close,

- A reluctance by the working equids to engage in their use for traction or transport or even a cessation and aggressive behaviour especially when fitting equipment or loading is undertaken.

Rationale

These texts should be moved to Article 7.X.4. on criteria or measurables for the welfare of working equids of this chapter, because they are not recommendations on animal welfare but explanations for the behaviour of working equids.

(the 6th paragraph)

Outcome-based measurables: behaviours (indicative of discomfort or pain, sociability with humans and other equids, alertness), body condition, physical appearance (injuries), changes in weight and body condition, fitness to work (willingness to accept equipment and loading work).

Rationale

According to Article 7.X.4. of this chapter, the 'sociability with humans and other equids' is not an outcome-based measurable for the welfare of working equids. The 'injuries' and 'willingness to accept equipment and loading work' are included in the outcome-based measurable of 'physical appearance' and 'fitness to work', respectively.

Article 7.X.11

End- of- life issues: euthanasia, slaughter (including end of working life, abandonment)

When *euthanasia* is practiced in working equids, the general principles in the *Terrestrial Code* should be followed. Euthanasia is the humane method of ending an *animal*'s life in the most pain-free and least stressful way possible. Otherwise the working equid may If otherwise they would suffer a prolonged and painful *death* by abandonment, neglect or disease *diseases* or acute, painful *death* such as being eaten by *wild animals* predators, or hit by a road vehicle *vehicles*, working equids should be humanly killed according to the methods provided in Chapter 7.6.

In case of disease or injury, when treatment has failed or recovery is unlikely (e.g. equids that are unable to stand up unaided and refuse to eat or drink), working equids should also be humanely killed according to the methods provided in Chapter 7.6.

Rationale

The expression of 'general principles in the *Terrestrial Code*' is ambiguous to follow.

Since the '*euthanasia*' is defined in the Glossary, it is unnecessary to explain it in the Article.

The second paragraph proposed by Japan is originated from the 8th paragraph of Article 7.X.8-2 proposed by the Code Commission of this chapter, and amended, taking into account the consistency with the draft Chapter 7.X. on animal welfare and dairy cattle production systems.

Article 7.X.12.

Appropriate workloads

(the 4th paragraph)

~~Animals~~ Working equids should work for a maximum of six hours per day and ~~should~~ be given at least one full days rest in every seven-day period (preferably two), on the average.

Rationale

This recommendation is unfeasible in some developing countries in Asia, where farmers are forced to work, from necessity, for more than six hours per days without full days rest during the busiest season of year. Unfeasible recommendations would encourage incompliance with OIE Codes.

(the 8th paragraph)

~~Animals should be in good health and fit to do the work that is required of them.~~

Rationale

There is nothing concrete about this recommendation at all. Member Countries would not know how they comply with it.

(the 9th paragraph)

Outcome-based measurables: behaviour, body condition, physical appearance (dehydration), handling responses, ~~gait and~~ lameness (gait).

Rationale

According to Article 7.X.4. of this chapter, the 'dehydration' is included in the outcome-based measurable of 'physical appearance'.

Article 7.X.13.

~~Farriery and h~~Harnessing

~~1. Farriery~~

~~Equids are shod for two main reasons; to prevent hoof wear and to improve performance. Many equids cope well without shoes and, if they are coping well, most are best unshod. However, poor hoof care and farriery predisposes the working equid to injury and infection, and can result in changes to the size, shape and function of the hoof. Untreated abnormalities of the foot can create long term problems in other parts of the leg due to change in gait and weight bearing. Such problems could affect:~~

~~a) Conditions of the hoof wall and horn producing tissues: hoof wall defects, such as cracks that involve the sensitive tissues; laminitis, laminar tearing (local, due to hoof imbalance), separation or inflammation of the sensitive laminae from the insensitive laminae; abscess formation; contusions of the hoof causing bruising or corn formation; neoplasia, and pododermatitis (thrush or canker).~~

~~b) Conditions of the third phalanx: third phalanx problems include fractures of the coffin bone, deep digital flexor insertional tendiopathy, pedal osteitis (generalized or localised inflammation of the bone), and disruption of the insertions of the collateral ligaments, cyst-like lesion formation, and remodeling disease.~~

~~c) Conditions of the podotrochlear region: these include distal interphalangeal synovitis or capsulitis, deep digital flexor tendinitis, desmitis of the impar (distal navicular ligament) or collateral sesamoidean ligaments, navicular osteitis or osteopathy, and vascular disease of the navicular arteries, and navicular fractures.~~

~~These conditions are all characterized by pain that can be localised to the hoof (Turner, 2013).~~

~~Outcome based measurables: physical appearance, lameness~~

Rationale

There is nothing recommended at all in the draft item. Since they are explanations on farriery, these texts should be moved to Article 7.X.4.-7 on complications due to management practices of this chapter. However, it is unnecessary to provide the specific conditions affected by untreated abnormalities of the foot in the *Terrestrial Code*. The descriptions are suitable for textbooks for veterinarians rather than international standards.

~~2~~1. Harnessing

~~For the purpose of this chapter, harnessing includes all parts of the driving harness, saddle, bridle and bit. They work to control the working equid, act as a braking system when pulling a cart, hold loads in place and~~

~~transfer power to attached carts or agricultural implements.~~

Rationale

The term of 'harness' should be defined in Article 7.X.2. on scope and definition of this chapter, because it is used in more than one article in this chapter.

(the 4th paragraph)

~~A good h~~Harness~~:~~: ~~does~~ should not have sharp edges which could cause injury to the working equids~~,~~ : should fit~~s~~ well so that it does not cause wounds or chafing caused by excess movement; ~~is~~ should be smoothly shaped or padded so that loads imposed on the equids' ~~body~~ bodies are spread over a large area; and ~~does~~ should not impede the animal's movement or normal breathing or restrict blood supply. Good harnessing also maximizes the efficiency of transfer of draught energy from ~~animal~~ working equids to load so that minimum effort is required by the equids.

Rationale

According to Article 7.X.5. of this chapter, this article should provide recommendations on harness but not introduction of good harness.

(the 7th paragraph)

Outcome-based measurables: physical appearance (lesions at sites of harness abrasion including abrasion of eye area associated with blinkers, lesions at lip commissures or other parts of the mouth associated with biting~~;~~, lesions on tail, hindquarters, hind limbs or hocks associate with contact with carts).

Rationale

Rhetorical correction and clarification according to Article 7.X.4.of this chapter

10. Chapter X.X. Infection with *Taenia Solium*

Article X.X.1.

General provisions

Infection with *Taenia solium* is one of the most common ~~a zoonotic~~ parasitic swine disease in the world ~~*infection* of pigs~~. *T. solium* is a cestode (tapeworm) that is endemic in large areas of Latin America, Asia and sub-Saharan Africa. The adult cestode occurs in the small intestine of humans (definitive host) causing taeniosis. The larval state (cysticercus) occurs in striated muscles, subcutaneous tissues and central nervous system of pigs (intermediate hosts), causing cysticercosis. Other suids and dogs can be infected but are not

epidemiologically significant. Humans may also harbour the larval stage when eggs shed in faeces of infected humans are ingested. The most severe form of the infection by the larval stage in humans is neurocysticercosis which causes seizures (epilepsy) and sometimes death. Cysticercosis, although normally clinically inapparent in pigs, is associated with significant economic losses due to carcass contamination and decreased value of pigs, and causes a major *disease* burden in humans.

Rationale

Rhetorical correction and clarification

Article X.X.6.

Procedures for the inactivation of T. solium cysticerci in meat of pigs

For the inactivation of T. solium cysticerci in *meat* of pigs, one of the following procedures should be used:

1) heat treatment to a core temperature of at least 80 °C~~; or~~

~~2) freezing to minus 10 °C or less for at least ten days or any time and temperature equivalent~~.

Rationale

Japan would like the Code Commission to show Member Countries the scientific evidence of the effectiveness of proposed cold treatment. The treatment is not found in reports of the Joint FAO/WHO Expert Meeting on Microbial Risk Assessment.