CODEX ALIMENTARIUS COMMISSION E

Food and Agriculture Organization of the United Nations

World Health Organization

Viale delle Terme di Caracalla, 00153 Rome, Italy - Tel: (+39) 06 57051 - Fax: (+39) 06 5705 4593 - E-mail: codex@fao.org - www.codexalimentarius.net

Agenda Item 6 **CX/FH 11/43/6 Add.1**

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Comments at Step 3 on the

PROPOSED DRAFT GUIDELINES FOR CONTROL OF SPECIFIC ZOONOTIC PARASITES IN MEAT: *TRICHINELLA SPIRALIS* AND *CYSTICERCUS BOVIS*

Comments Submitted by:

Brazil, Colombia, Costa Rica, Egypt, Jamaica, Japan, Kenya, Mexico, Norway, Peru, Senegal, Uruguay, United States of America, World Organisation for Animal Health (OIE)

BRAZIL

Brazil congratulates the drafting group led by European Union and New Zealand for the advances obtained and the efforts to grant an objective approach to the document. Continuing the revision of the document, the alterations in the items described below are suggested.

GENERAL COMMENTS

Brazil consider that the Committee should decides how to refer to the OIE document, specifically the chapters used in this Proposed Draft Guidelines, as these documents are reviewed periodically and the sections may vary depending on the versions.

SPECIFIC COMMENTS

Appendix I Proposed Draft Guidelines for Control of Specific Zoonotic Parasites in Meat: *Trichinella* in Meat of Suidae

2. Objectives

Consider to add on paragraph fifth as footnote the reference of the Guidelines on the Judgment of Equivalence of Sanitary Measures associated with Food Inspection and Certification Systems (CAC/GL 53-2003), considering that are provisions already approved by Codex Alimentarius for judgment of equivalence.

5. The Guidelines also provide a consistent and transparent technical basis for reviewing national or regional control measures based on epidemiological information and risk analysis. They should be taken into account in the **judgment of equivalence**[1] by importing countries where such measures differ from their own, thereby facilitating international trade.

[1] Guidelines on the Judgment of Equivalence Sanitary Measures associated with Food Inspection and Certification Systems (CAC/GL 53-2003)

3.2. Use

It is suggested to review the reference title of the CAC/RCP 8-1976, as proposed below:

10. The Guidelines develop specific guidance for control of *Trichinella* in meat of Suidae with potential control measures being considered at each step, or group of steps, in the process flow. The Guidelines are supplementary to and should be used in conjunction with the *Recommended International Code of Practice – General Principles of Food Hygiene* (CAC/RCP 1 – 1969), the *Code of Hygienic Practice for Meat (*CAC/RCP 58-2005), ~~**the *International***~~ *Code of Practice for the Processing and Handling of Quick Frozen Foods* (CAC/RCP 8-1976)**,** the FAO/WHO/OIE Guidelines for the surveillance, management, prevention

and control of trichinellosis and the *Recommendations on the Methods for the Control of Trichinella in Domestic and Wild Animals intended for Human Consumption* of the International Commission on Trichinellosis.

Consider to add on paragraph 12 as footnote the reference of the Guidelines on the Judgment of Equivalence of Sanitary Measures associated with Food Inspection and Certification Systems (CAC/GL 53-2003), considering that are provisions already approved by Codex Alimentarius for judgment of equivalence.

12. Provision of flexibility in application of the Guidelines is an important attribute. They are primarily intended for use by government risk managers and industry in the design and implementation of food control systems. The Guidelines could also be used when **judging the equivalence**[1] of different food safety measures for meat of Suidae in different countries for international trade.

[1] Guidelines on the Judgment of c of Sanitary Measures associated with Food Inspection and Certification Systems (CAC/GL 53-2003)

6.2 Risk Profile

Consider to clarify the provision in paragraph 18. Additionally, it is proposed to replace “has been presented to the CCFH during its 43rd meeting” to “is presented in Appendix III” until the Committee decides the future of this generic risk profile. Brazil supports that a link to the risk profile should be available in the future as footnote in this Proposed Draft Guidelines.

18. A generic risk profile which takes into account the FAO/WHO/OIE Guidelines for the surveillance, management, prevention and control of zoonosis ("FAO/WHO/OIE Guidelines *Trichinella*") ~~has been presented to the CCFH during its 43rd meeting~~ **is presented in Appendix III**.

7.2 Availability of post-slaughter control measures

Consider to clarify the applicability of curing process as a post-slaughter control measure for *Trichinella*, as the inactivation of this parasite is ensured by drying process. According to International Commission on Trichinellosis document curing process is not recommended for control of trichinae in pork, horse or game meats.

23. Currently used post-slaughter control measures for *Trichinella* include: laboratory testing, freezing, cooking ~~and curing~~. Irradiation of pork products is also a validated option to destroy *Trichinella* in pork prior to consumption. These measures may be subject to the approval of the competent authority.

7.2.1 Testing

Consider revising paragraph 25 and 26 to include the use of the methodology in its latest version, as OIE document are reviewed periodically and the sections may vary depending on the versions.

25. When laboratory testing is being performed on individual carcasses, those selected should be tested in accordance with the diagnostic techniques recommended in Chapter 2.1.16. of OIE terrestrial Manual (B1) ("digestion method").

26. When doing serology testing for surveillance or verification of the status of swine from controlled housing then testing should be done in accordance with the diagnostic techniques recommended in Chapter 2.1.16 of *OIE Terrestrial Manual* (B2) ("serological test").

7.2.3 Cooking and irradiation

Consider to add as footnote a reference to the Codex Stan 106-1983, General Standard for Irradiated Foods in paragraph 31.

31. The possible use of these methods should take into account the "Recommendations on Methods for the Control of *Trichinella* in Domestic and Wild Animals Intended for Human Consumption prepared by the International Commission on Trichinellosis (ICT) Standards for Control Guidelines Committee". The **General standards on irradiated food** should also be taken into account.

[2] General Standard for Irradiated Foods (Codex Stan 106-1983).

7.3.2. Selection of measures

Consider to include the text “over five weeks of age” in square brackets and delete the text “provisional for discussion” until OIE had made further progress on the work in respect of quantitative description of on-farm status and CCFH could use theses provisions as a reference point. Additionally, consider to delete curing

process as a control measure to *Trichinella*, as according to International Commission on Trichinellosis document curing process is not recommended for control of trichinae in pork, horse or game meats.

33. In the absence of epidemiological evidence of "freedom" or "negligible risk"[3] of a slaughter population from *Trichinella*, all carcasses from domestic swine **[over five weeks of age]** ~~*(provisional for discussion)*~~ should be subject to either:

• Laboratory testing with disposition of the positive carcasses according to the Competent authority; or

• Freezing, or

• Cooking, or

• ~~Curing~~, or

• Irradiation

Appendix II Proposed Draft Guidelines for Control of Specific Zoonotic Parasites in Meat: Cysticercus *Bovis* in Meat of Domestic Cattle

2. Objectives

Consider adding on paragraph sixth as footnote the reference of the Guidelines on the Judgment of Equivalence of Sanitary Measures associated with Food Inspection and Certification Systems (CAC/GL 53-2003), considering that are provisions already approved by Codex Alimentarius for judgement of equivalence.

6. The Guidelines also provide a consistent and transparent technical basis for reviewing national or regional control measures based on epidemiological information and risk analysis. They should be taken into account in the **judgement of equivalence**[1] by importing countries where such measures differ from their own, thereby facilitating international trade.

[1] Guidelines on the Judgment of c of Sanitary Measures associated with Food Inspection and Certification Systems (CAC/GL 53-2003)

3.2. Use

Consider adding on paragraph 12 as footnote the reference of the Guidelines on the Judgment of Equivalence of Sanitary Measures associated with Food Inspection and Certification Systems (CAC/GL 53-2003), considering that are provisions already approved by Codex Alimentarius for judgement of equivalence.

12. Provision of flexibility in application of the Guidelines is an important attribute. They are primarily intended for use by government risk managers and industry in the design and implementation of food control systems. The Guidelines could also be used when **judging the equivalence**[1] of different control measures for beef meat in different countries.

[1] Guidelines on the Judgment of c of Sanitary Measures associated with Food Inspection and Certification Systems (CAC/GL 53-2003)

4. Definitions

Consider to include as footnote the reference "OIE Terrestrial Health Code", as proposed in Appendix I of this Proposed Draft Guidelines.

Compartment[3] means an animal subpopulation contained in one or more establishments under a common bio-security management system with a distinct health status with respect to a specific disease or specific diseases for which surveillance, control and bio-security measures have been applied for the purpose of international trade.

Herd[3] means a number of animals of one kind kept together under human control or a congregation of gregarious wild animals. A herd is usually regarded as an epidemiological unit

Consider to add a definition of "Veterinary Authority" in this section as proposed in Appendix I of this Proposed Draft Guidelines.

Veterinary authority[3] **means the governmental authority comprising veterinarians, other professionals and para-professionals, having responsibility and competence for ensuring or supervising the implementation of animal health and welfare measures, international veterinary certification and other standards and recommendations in these Guidelines in the whole territory.**

6.2 Risk Profile

Consider to add a reference to Appendix III in this Section, as presented below, until the Committee decides the future of this generic risk profile.

Brazil supports that a link to the risk profile should be available in the future as footnote in this Proposed Draft Guidelines.

A generic risk profile which takes into account the FAO/WHO/OIE Guidelines for the surveillance, management, prevention and control of taeniosis/cysticercosis is presented in Appendix III.

7.2.3. Treatment of meat

Consider to add as footnote the reference to CODEX STAN 106-1983, Rev.1-2003, General Standard for Irradiated Foods in paragraph 24, considering that are provisions already approved by Codex Alimentarius for irradiated foods.

24. A proportion of meat from domestic cattle will routinely be subjected to heat treatment (freezing or cooking) that is lethal for *C. bovis*, and this will further limit consumer exposure.

Salting and **irradiation**[2] according to validated processes are further treatments that may be available.

[2] **General Standard for Irradiated Foods (CODEX STAN 106-1983).**

COLOMBIA

Colombia is pleased to submit the following comments on the **"Proposed Draft Guidelines for the Control of Specific Zoonotic Parasites in Meat: *Trichinella* in Meat of Suidae"** at Step 3 of the Procedure, circulated by the Secretariat of the Codex Alimentarius Commission**.**

We herein refer to the document as it appears in Appendix I of CX/FH 11/43/6, based on the Spanish version.

I. 6.1 Identification of a food safety issue – Paragraph 15

The document should be consistent with the English version.

"(…) con el fin de identificar todas las fases en la cadena alimentaria donde pudieran posiblemente aplicarse medidas de control. (…)"

Proposal: (…) con el fin de identificar todas las fases en la cadena alimentaria donde ~~pudieran posiblemente aplicarse~~ **las** medidas de control **se puedan aplicar.** (…).

II. 7.1 Control measures at farm level for domestic swine – Paragraph 21

From the description of animal carcasses, it is understandable in technical language that it refers to animals that have died. The document should be consistent with the English version.

"(…) or intentional or unintentional exposure to carcases of dead swine (…)."

Proposal: (…) or intentional or ~~unintentional~~ **involuntary** exposure to carcasses of ~~dead~~ swine (…).

III. 7.2.3 Cooking and irradiation – Paragraph 33

We suggest a change in the wording to make the text coherent in the Spanish version.

"(…) Basados en un análisis de la epidemiología en el ámbito de la explotación agropecuaria, (…)"

"(…) Based on an analysis of the epidemiology at the farm, (…)"

Proposal: (…) Basados en un análisis ~~de la epidemiología~~ **epidemiológico** en el ámbito de la explotación agropecuaria, (…)

(…) Based on an **epidemiological** analysis ~~of the epidemiology~~ at the farm, (…)

IV. 7.3.2. Selection of measures – Paragraph 33

We suggest a change in the wording to make the text coherent in the Spanish version.

"(...) deberían estar sujetas a algo de lo siguiente: (…)"

"(...) should be subject to either: (…)"

Proposal: (...) deberían estar sujetas a **alguno** ~~algo~~ de lo**s** siguiente**s enunciados**: (…).

(...) should be subject to **one or some** ~~either~~ of the **following statements**: (…).

Colombia is pleased to submit the following comments on the **"Proposed Draft Guidelines for the Control of Specific Zoonotic Parasites in Meat: *Cysticercus bovis in Domestic Cattle Meat*"** at Step 3 of the Procedure, circulated by the Secretariat of the Codex Alimentarius Commission**.**

We herein refer to the document as it appears in Appendix II of CX/FH 11/43/6, based on the Spanish version.

I. 7.1 Control measures at farm level – Paragraph 18

Change in the wording to make the text coherent in its Spanish version (this applies only to the Spanish version of the document).

"(…) Pueden usarse análisis de serología utilizando una metodología validada para realizar estudios epidemiológicos o diagnósticos de infestación en rebaños.(…)"

Proposal: (…) Pueden usarse análisis ~~de serología~~ **serológicos** utilizando una metodología validada para realizar estudios epidemiológicos o diagnósticos de infestación en rebaños. (…).

COSTA RICA

Costa Rica would like to thank the Codex Committee on Food Hygiene for the opportunity to provide comments on the document prepared by the Physical Working Group led by the European Union and New Zealand.

1. In paragraph 7 Costa Rica proposes the following amendment to the text in order to highlight the specificity of the document and enhance understanding.

These Guidelines apply to the control of ~~all~~ *Trichinella* that may infest meat of Suidae and **therefore cause infestation in humans during its consumption.** ~~can cause food-borne disease.~~. The proposed guidelines are based on the Working Principles for Risk Analysis for Application in the Framework of the Codex Alimentarius and on the Code of Hygienic Practice for Meat (CAC/RCP 58-2005), which provides generic guidance on a risk-based approach to meat hygiene.

2. In paragraph 8 Costa Rica proposes the following change in the text in order to enhance understanding. The Guidelines apply to all steps **from primary production to consumption** ~~in a "primary production-to-consumption" food chain~~. Example situations where the epidemiology and prevalence of infestation in the slaughter population differs according to country, region or farming system are provided so as to inform risk management decisions at the national level.

3. In section 7.2 Availability of post-slaughter control **and treatment** measures,

Rationale: Costa Rica proposes to add the term treatment in this section, as laboratory testing is a diagnostic test, while freezing, cooking and curing are treatments, as is irradiation.

4. In paragraph 23 Costa Rica proposes the following change in the text in order to enhance understanding. Currently used post-slaughter control **and treatment** measures for Trichinella include: laboratory testing, freezing, cooking and curing. Irradiation of pork products is also a validated option to destroy Trichinella in pork prior to consumption. These measures may be subject to the approval ~~of~~ **by** the competent authority.

5. In paragraph 29 Costa Rica proposes to include the terms in bold in order to enhance understanding.

Laboratory testing requires a minimum of 1 g of **muscular tissue obtained** from a predilection site **in carcasses** to provide a minimum sensitivity of 3 larvae per gram of tissue. In endemic areas, 3 g of tissue should be used (FAO/WHO/OIE Guidelines). However, it should be noted that testing according to this methodology does not have 100% sensitivity**.**

6. In paragraph 33 Costa Rica proposes the following change in the text in order to elaborate on protection measures.

In the absence of epidemiological evidence of "freedom" or "negligible risk"3 of a slaughter population from Trichinella, all carcasses from domestic swine over five weeks of age (provisional for discussion) should be subject to **at least one of the following preventive measures** ~~either~~

• Laboratory testing with disposition of the positive carcasses according to the

Competent authority; or

• Freezing, or

• Cooking, or

• Curing, or

• Irradiation.

Otherwise, the carcasses shall be safely destroyed.

General Comments

The cooking treatment as a preventive measure referred to in paragraph 23 does not indicate the time or the temperature that should be reached in order to ensure the safety of the meat.

Likewise, the text refers to the term "curing", for which the procedure to ensure the safety of the product is not set out either.

In relation with APPENDIX II. PROPOSED DRAFT GUIDELINES FOR THE CONTROL OF SPECIFIC ZOONOTIC PARASITES IN MEAT: *CYSTICERCUS BOVIS IN DOMESTIC CATTLE MEAT. (at Step 3 of the Procedure).*

Costa Rica has no comments on this document.

EGYPT

Generally , the Egyptian inspection routine regarding the two mentioned parasites usually follows the same regulation illustrated in the Proposed Draft Code of Hygienic Practice for Control of Specific Zoonotic parasites in Meat: Trichinella Spirals and Cysticercus Bovis .

So, Regarding part 1 : Trichinella Spiralis, Egypt agrees all the Proposed key points summarized in the draft documents (from point 9 to point 17) .

Regarding part 2 : Cysticercus Bovis Egypt agrees all the Proposed key points summarized in the draft documents (from point 18 to point 28) .

JAMAICA

Jamaica has no specific comment on this draft. We would however like to comment on Appendix IV. It is unclear as to the purpose of this Annex which lists the national inspection procedures of a few selected countries. It is not clear as to the usefulness of this list to other countries. Are these the ‘gold’ standard inspection procedures for which other countries should strive? In Jamaica, we do multiple incision of the external masseter muscle similar to the USA.

Since this draft is one intended for international use, each of its components should then be laid out in such a manner that is instructive and may be applicable to all or most countries.

JAPAN

Japan acknowledges the work of the physical working group on the development of the proposed the guidelines document and pleased to submit the following comments.

General comments

1. Risk profile: According to the Risk Analysis Principles and Procedures Applied by the CCFH, a preliminary risk profile should be attached to the project document. Based on the information provided in the risk profile, Member States could determine the priority of the new work.

However, in the case of this particular new work, a preliminary risk profile is not provided together with the project document.

We recommend elaborating the risk profiles further and once they are finalized, we should take a similar approach as we took in the *Campylobacter* and *Salmonella* in broiler document. (which means to add following sentence)

19 bis. The contents of these Guidelines are predicated on an extensive risk profile on *Trichinellla* in meat of Suidae and *Cysticercus Bovis* in meat of domestic cattle:

- **Food Safety Risk Profile for *Trichinellla* in meat of Suidae, 2012(?) (put foot note of the FAO ftp server address)**
- **Food Safety Risk Profile for *Cysticercus Bovis* in meat of domestic cattle, 2012(?) (put foot note of the FAO ftp server address)**

2. Until the section 8.1 to 8.3 in Appendix I and paragraph 33 of section 8 in Appendix II, which will be developed based on the new OIE proposal currently discussed in an OIE ad hoc working group, is finalized, Japan proposes that the discussion of this guideline should be postponed.

Rationale: Currently the sections on control measures at farm level and conditions for official recognition of *Trichnella* free herd/compartments and negligible risk heavily rely on the OIE document under discussion. Until we are able to read the final document, we can't determine this approach is appropriate or not.

3. Japan would like to propose that the development of a general document on parasites in food should be go ahead based on the outcome of the FAO/WHO Expert Consultation. We expect the one of the outcomes of the Expert Consultation could be the significant public heath priorities of the specific parasite/food combinations. Based on this priority list, we should determine how and what specific Annex(es) should be developed at 44th session of the CCFH. This view is in line with the recommendation from the Executive Committee (para 41 of the REP11/EXEC)

4. paragraph 28

In general, Japan supports that the intensity of inspection could be proportional to the risk.

However, we do not have enough data to determine from what prevalence level we should implement intensive inspection along with other control measures such as trace back to farm of origin and trace forward to the slaughterhouse for animal from suspect herds. On the contrary, we do not have enough information to determine the level of the prevalence of infection which allows competent authorities to apply a lesser intensity of inspection. Obviously we need more scientific information in this area from FAO/OIE/WHO.

Specific comments

Appendix I

1. Paragraph 2

"As governments review their meat hygiene systems, it appears that in the national or regional situation, some traditional control measures for meat and meat products in trade as ~~now~~ applied **before 2011** can be singularly inappropriate in terms of proportionality to the level of risk reduction achieved."

Rationale: It is appropriate to replace "now" with "before 2011" because the statement could be true now (means before 2011), but in the future (after this document is finalized) and we do not know what time "now" means.

2. Paragraph 20

6.3 Risk Assessment Policy and Risk Assessment

~~20. In the case of *Trichinella* in pig meat, elaboration of risk assessment policy and risk assessment was not deemed necessary [by CCFH] in the application of a RMF approach.~~[Furether development]

Rationale: We think that it could be necessary to conduct some risk assessments in the course of the elaboration of this Annex. In addition, the Executive Committee also recommended to take a risk based approach in developing this document, including conducting a risk assessment. (para 41 in REP11/EXEC) Therefore the current paragraph should be deleted and a new text should be elaborated based on the discussion in the 43rd session of the CCFH

Appendix II

1. Paragraph 2

"As governments review their meat hygiene systems, national or regional situation, some traditional control measures for meat and meat products in trade as ~~now~~ applied **before 2011** can be singularly inappropriate in terms of proportionality to the level of risk reduction achieved."

Rationale: It is appropriate to replace “now” with “before 2011” because the statement could be true now (means before 2011), but in the future (after this document is finalized) and we do not know what time “now” means.

2. Paragraph 17

6.3 Risk Assessment Policy and Risk Assessment

~~17. In the case of cysticerscosis in beef meat, elaboration of risk assessment policy and risk assessment was not deemed necessary [by CCFH] in the application of a RMF approach.~~ [Furether development]

Rationale: We think that it could be necessary to conduct some risk assessments in the course of the elaboration of this Annex. In addition, the Executive Committee also recommended to take a risk based approach in developing this document, including conducting a risk assessment. (para 41 in REP11/EXEC) Therefore the current paragraph should be deleted and a new text should be elaborated based on the discussion in the 43rd session of the CCFH

3. Paragraph 28.

“The Competent Authority / Veterinary Authority may provide derogation from some routine postmortem inspection procedures and / or reduce the intensity of some routine post mortem inspection procedures (palpation and/or incision) where there is:

• "Public health data demonstrating that human infestation attributable to the domestic slaughter population is very rare; and/or

• Slaughterhouse information demonstrates a very low prevalence of suspect cysts in the meat of the slaughtered population over time”

Comment: This paragraph is entirely incomprehensive without knowing the content of “some routine postmortem inspection procedures”. Comprehensive description is necessary.

KENYA

PROPOSED **DRAFT GUIDELINES FOR CONTROL OF SPECIFIC ZOONOTIC PARASITES IN MEAT: *TRICHINELLA SPIRALIS* AND *CYSTICERCUS BOVIS*- CX/FH 11/43/6 (AT STEP 3)**

APPENDIX 1:

***TRICHINELLA SPIRALIS* IN MEAT OF SUIDAE**

GENERAL COMMENT

The proposed guideline is heavily relying on the OIE Terrestrial Animal Health Code Chapter 8.13.1 which is still under study. Therefore pending issues should remain in square brackets such as in Section 9

SPECIFIC COMMENT

1. Introduction

Para.3.

Kenya noted the need to indicate the reference in brackets as: Principles and Guidelines for the Conduct of Microbiological Risk **Management** CAC/GL/63-2007

Justification:

For the purpose of clarity and ease of reference.

3.2 Use.

Para.10. Kenya recommends the word ***develop*** in the first sentence be replaced with ***“provide***

Justification: For clarity purposes.

6.3 Risk Assessment Policy and Risk Assessment

Para. 20.

Kenya is of the opinion that though there is lot of historical information on *Trichinella spiralis*, there may be a need to review current scientific knowledge on *Trichinella spiralis* to determine whether there is a need for

elaboration of a risk assessment policy and Risk Assessment in the application of a Risk Management Framework (RMF).

Justification:

This is in line with the report of 42nd CCFH meeting which requested FAO and WHO to review the current status of knowledge on parasites in food and their public health and trade impact in order to provide the CCFH with advice and guidance on the parasite-commodity combinations of particular concern, the issues that need to be addressed by risk managers and the options available to them.

7.2 Post-slaughter Control Measures

Para.23.

Kenya observed that curing of pork is not a recommended *Trichinella* control measure. However, curing can be used as a control measure against *Trichinella* in pork provided the method is validated and the process well controlled.

Justification: This is in line with the recommendations of ***International Commission on Trichinellosis***

Recommendations on Methods for the Control of Trichinella in Domestic and Wild Animals Intended for Human Consumption.

8.4. Implementation of risk-based control measures

Para.40.

Kenya recommends the following statement replaces the bracketed sentence: "***To provide assurance of adequate protection of public health and safety in respect of Trichinellosis, various species of wild boars and cross breeds intended for human consumption should be tested for Trichinella infection using accepted methodology".***

Justification:

Kenya considered the control of wild boars and cross breeds as risk factors to the spread of *Trichinella* (FAO/WHO/OIE Guidelines for the Surveillance, Management, Prevention and Control of Trichinellosis, 2007)

10. Risk Communication

Para.55.

Kenya recommends that the sentence be modified to read as ***"Retailers and Consumers…."***

Justification: In order to include retailers in public awareness creation programs.

PROPOSED DRAFT GUIDELINES FOR CONTROL OF SPECIFIC ZOONOTIC PARASITES IN MEAT: *TRICHINELLA SPIRALIS* AND *CYSTICERCUS BOVIS*- CX/FH 11/43/6 (AT STEP 3)

APPENDIX II.

***CYSTICERCUS BOVIS* IN MEAT OF DOMESTIC CATTLE**

SPECIFIC COMMENTS

1. Introduction.

Para.1.
T.saginata to be underlined or in italicized

Para.4.

Need to indicate the reference in brackets as Principles and Guidelines for the Conduct of Microbiological Risk Management **CAC/GL/63-2007**

3.2 Use.

Para.9.

Kenya recommends the word ***develop*** in the beginning sentence be replaced with ***"provide***".

6.3 Risk Assessment Policy and Risk Assessment

Para. 17.

Kenya is of opinion that though there is lot of historical information on *Cysticercus bovis*, there may be a need to review current scientific knowledge on *Cysticercus bovis* to determine whether there is a need for elaboration of a risk assessment policy and Risk Assessment in the application of a Risk Management Framework (RMF).

Justification:

This is in line with the report of 42nd CCFH meeting which requested FAO and WHO to review the current status of knowledge on parasites in food and their public health and trade impact in order to provide the CCFH with advice and guidance on the parasite-commodity combinations of particular concern, the issues that need to be addressed by risk managers and the options available to them.

7.2.3. Treatment of Meat

Para.24.

Kenya reviewed and proposed the following modification: "***A proportion of meat from domestic cattle will routinely be subjected to heat treatment (cooking) or freezing that is lethal for C. bovis, and this will further limit consumer exposure***".

9. Monitoring and review

The word 'evaluation' to be added to the title

Justification: Statement modified to provide clarity

APPENDIX III

B. **SUMMARY RISK PROFILE ON *C. BOVIS* IN MEAT FROM DOMESTIC CATTLE**

GENERAL COMMENT

Risk Profiles.

Kenya observed that the risk profiles in the draft document provide useful information for effective implementation of the proposed guidelines. It proposes that the sections on risk profiles be presented as manuals by FAO/WHO for public education and stakeholders.

Justification:

- The inclusion of the risk profiles in the final guidelines would not be in line with Codex format.

This may be considered as part of the proposed FAO/WHO review work on parasites in foods.

SPECIFIC COMMENTS

B. SUMMARY OF RISK PROFILE ON *C. BOVIS* IN MEAT FROM DOMESTIC CATTLE

2. Description of the public health concern

Para. 3.

Kenya recommends the deletion of the phrase **"(such as in sub-Saharan Africa)"** which appears in the last sentence of paragraph 3

Justification

The example given is not necessary as the same risks exist in areas with similar conditions.

MEXICO

Mexico reiterates its commitment to the Codex Alimentarius and appreciates the opportunity to submit comments on **CX/FH 11/43/6**: Proposed Draft Guidelines for the Control of Specific Zoonotic Parasites in Meat: Trichinella spiralis y Cysticercus bovis.

GENERAL COMMENTS:

We believe that the document requires greater revision in general, and we believe that this should be done after receiving the information that the FAO and the WHO gathered at the expert meeting and through the recent request for information, in addition to the updates of the OIE to the "*Terrestrial Animal Health Code*", which is under revision.

Consequently, and depending on the information provided by these organizations, we suggest working on a general document that covers all parasites and, if applicable, based on the information, include annexes with the parasite-product pairs that are considered to be relevant for specific discussion.

Finally, we consider that the risk profiles developed in this document contain valuable information but, as has been the case with other documents, rather than including them as part of the guidelines, we recommend that they be part of the review that is being carried out by the expert group of the FAO/WHO and let them decide whether they should be included as an annex to their report.

NORWAY

Norway appreciates this opportunity to comment upon the proposed draft guidelines for control of specific zoonotic parasites in meat: *Trichinella spiralis* and *Cysticercus bovis* (CX/FH 11/43/6) and we appreciate the effort the European Union and New Zealand have put into preparing this draft.

(i) General comments

Norway mainly supports the document and the joint effort to develop common standards on this subject, both by Codex and the OIE. There should be made cross-references between this document and the OIE document (Draft with changes to the Terrestrial Code Chapter 8.13) that is under development on the same subject. Norway is of the opinion that it is important to enhance the good cooperation between the Codex and the OIE. This was recently done when working on the guidelines for the control of Campylobacter and Salmonella in chicken meat. Furthermore, we are of the opinion that these draft guidelines should include the whole food chain. It is also our recommendation that the Forty-third Session of the CCFH make specific comments to the OIE regarding pre-slaughter measures.

(ii) Specific comments

SECTION 7 Identification and selection of control measures using a risk-based approach

Paragraph 23 – Currently used post-slaughter control measures for Trichinella include: laboratory testing, freezing, cooking and curing. Irradiation of pork products is also a validated option to destroy Trichinella in pork prior to consumption. These measures ~~may be~~ **are** subject to the approval of the competent authority**, where appropriate**.

Rationale: Our national legislation only allow some of the control measures in question; so if a slaughterhouse in our country would want to use another control measure, this would be subject to an approval by the competent authority. Therefore we suggest that this paragraph be rewritten.

PERU

General Comments:

Inclusion of the following is suggested for the introduction:

Foodborne parasitic diseases cause serious problems in different parts of the world; it has been estimated that there are more than 70 parasite species that can be transmitted through food and water. These have different life cycles, transmission routes, and epidemiological characteristics, among others, which means that the members of this group of pathogenic organisms may present special control problems.

Specific Comments:

1. Add the following in paragraph 32:

A risk-based approach applied to meat hygiene requires a reevaluation of conventional production practices and extending this risk approach to the other stages of the production chain, within a detailed implementation framework.

2. In the Introduction of the **PROPOSED DRAFT GUIDELINES FOR THE CONTROL OF SPECIFIC ZOONOTIC PARASITES IN MEAT:** ***CYSTICERCUS BOVIS IN DOMESTIC CATTLE MEAT***, the following should be included:

Bovine cysticercosis is a disease that affects bovine striated muscle and is caused by *Cysticercus bovis*, *Taenia saginata* larvae that are found in the small intestine in humans (Wanzala et al. 2003b, Abuseir et al. 2007).

Cysticercosis is relevant as a public health issue for being a zoonosis of socio-economic interest due to the losses it causes at a slaughter level. From an economic standpoint, bovine cysticercosis produces serious economic losses in the cattle industry (Yoder et al. 1994, Giesecke 1997). Losses are mostly due to carcass condemnation, the lower value of beef after the freezing process (reduction of 30-45 percent of the value of an affected carcass), 3% weight loss due to cold sanitation, as well as loss of edible byproducts (Geerts 1990, Soulsby 1987, Jahed et al. 2010).

SENEGAL

Appendix I

PROPOSED DRAFT GUIDELINES FOR CONTROL OF SPECIFIC ZOONOTIC PARASITES IN MEAT:

***TRICHINELLA* IN MEAT OF SUIDAE**

(at Step 3 of the Procedure

SPECIFIC COMMENTS

- **Introduction :** replace the sentence : "infections occur in humans by the consumption of raw or undercooked infected meat ..." with **infestations among humans occur upon consumption of raw or undercooked infected meat ..."**
- **Introduction :** Add reference mentioned in Section 3: **Principles and Guidelines for the Conduct of Microbiological Risk Management CAC/GL/63-2007**
- **Section 5 :** Principles applying to control of Trichinella in pork meat: write ***Trichinella***
- **Section 10 : Communication**
  Replace communication of risks with **communication about risks**
  replace free of the *Trichinella* with free of ***Trichinella***

RATIONALE

- In the case of parasites, the term to be used is infestation; the term infection is used when bacteria or viruses are involved.
- *Trichinella is a genus name and must be written in italics or underlined*

Annex II

DRAFT GUIDELINES FOR THE CONTROL OF ZOONOTIC PARASITES IN MEAT:

***CYSTICERCUS BOVIS* IN MEAT OF DOMESTIC CATTLE**

(at Step 3 of the Procedure)

SPECIFIC COMMENTS

- **Introduction** : write *tenia saginata* in italic throughout the document
- **Pararaph 4 in Introduction**: Insert the following reference: **Principles and Guidelines for the Conduct of Microbiological Risk Management CAC/GL/63-2007**
- **Paragraph 2** : write: the public health significance of the beef tapeworm **larva**...
- **Section 3-1, 7th bullet**: write "that may cause taeniasis **in humans**"
- Section 7 2 5 : replace infection with **infestation**

Page 17, 10th bullet : write communication **about risks**

RATIONALE:

- In taxonomy, names of genus and species should be italicized or underlined

Annex III

SUMMARY RISK PROFILES

SPECIFIC COMMENTS

- Section A : write "summary risk profiles of ***Trichinella"***
- ***In the document, delete "de la Trichinella" and replace with "de Trichinella"*** (applies to French text only)

Write "infested meat" throughout the document

URUGUAY

Uruguay appreciates the work conducted by the Physical Working Group co-chaired by the European Union and New Zealand.

This revision was based on the Spanish version of the document.

General Considerations:

Uruguay supports the joint work conducted by Codex and the OIE in the development of this document.

Specific Considerations:

APPENDIX I

PROPOSED DRAFT GUIDELINES FOR THE CONTROL OF SPECIFIC ZOONOTIC PARASITES IN MEAT: *TRICHINELLA* IN MEAT OF SUIDAE.

7.2. Availability of post-slaughter control measures

Paragraph 23

Uruguay suggests the removal of curing as a measure to inactivate *Trichina*, in consistency with 2.4 “Curing to Inactivate Trichinae” of the “Recommendations on Methods for the Control of *Trichinella* in Domestic and Wild Animals Intended for Human Consumption prepared by the International Commission on Trichinellosis (ICT) Standards for Control Guidelines Committee”, cited as a reference in the Codex document under discussion.

7.3. Selection of risk-based control measures

7.3.2. Selection of measures

Paragraph 33

Same comment as the one for paragraph 23.

UNITED STATES OF AMERICA

The following is the United States response to the request for country comments on the CCFH text, Proposed Draft Guidelines for Control of Specific Zoonotic Parasites in Meat: *Trichinella spiralis* and *Cysticercus bovis* (CX/FH 11/43/6). The United States is providing a number of suggestions for revisions, primarily to provide clarity. We provide separate comments for each appendix.

Appendix I: Proposed Draft Guidelines for Control of Specific Zoonotic Parasites in Meat: *Trichinella* in Meat of Suidae

GENERAL COMMENTS

Generally speaking, the U.S. is happy with the direction that this text is taking and appreciates the inclusion of cooking, curing, and irradiation as appropriate food safety measures to address *Trichinella* in Suidae.

Statements made in this document about ‘risk-based’ measures should be clearly spelled out so it is clear that there is science to back up the risk-based determinations.

These guidelines should only pertain to post-harvest and forward, and should only mention primary production (pre-harvest stages) when directly relevant to post-harvest measures. Any primary production references should reference OIE or other appropriate guidance.

There are several places in the text that refer to "pork meat." The United States recommends that the term be changed to "pork," as this is the meat derived from swine.

As agreed to by the working group, the U.S. fully supports that the final OIE text be considered prior to completion of the *Trichinella* appendix. Until the OIE text becomes available for the working group to consider, the draft document should remain with the working group.

SPECIFIC COMMENTS

In the comments below, text to be removed is indicated by strike outs and text to be added is underlined.

INTRODUCTION

Paragraph 1, third sentence. Revise the first paragraph as shown below:

"In some countries, m~~M~~eat from Suidae is considered to be the most important food vehicle for human infection."

Rationale: The U.S. believes it is important to clarify that meat from Suidae is not the most important food vehicle for human infection in all countries.

SECTION 3 – SCOPE AND USE OF THE GUIDELINES

3.1 Scope

Paragraph 7, first sentence. Edit the first sentence as shown below.

"These Guidelines apply to the control of all species and genotypes of *Trichinella* that may infest meat of Suidae and ~~can~~ cause foodborne disease."

Rationale: Editorial clarification.

Paragraph 8, first sentence. We recommend inserting a reference to the OIE guidance as shown below:

"These Guidelines, used in conjunction with the OIE guidelines, apply to all steps in a "primary production-to-consumption" food chain."

Rationale: Reference to the OIE guideline on *Trichinella* is needed to address the primary production part of the food chain, as these guidelines address post-harvest. .

Paragraph 9. We recommend deleting the paragraph.

~~"While the biosecurity provisions in this document have been developed primarily for controlled housing they also have applicability to other production systems.~~"

Rationale: Biosecurity and housing systems are not a post-harvest issue and are outside of the purview of Codex.

3.2 Use

Paragraph 13, first sentence. We recommend the following revision to the first sentence:

"Thes~~e~~ Guidelines take a ~~primary production to consumption~~ risk-based approach ~~that presents both pre-slaughter and post-slaughter~~ to identify appropriate post-harvest control measures as risk management options."

Rationale: To provide consistency with the use of these guidelines for post-harvest guidance.

SECTION 4 – DEFINITIONS

The United States proposes that a new definition be added as shown below:

Wild boar means swine living outside of a managed production system.

We also suggest that the Working Group provide a definition of cross breeds.

Rationale: Because there are management strategies specific to these animals, there should be definitions to make it clear the types of animals to which the management strategies apply.

SECTION 6 – PRELIMINARY RISK MANAGEMENT ACTIVITIES

6.2 Risk profile

Paragraph 18. We recommend deleting paragraph 18.

"~~A generic risk profile which takes into account the FAO/WHO/OIE Guidelines for the surveillance, management, prevention and control of zoonosis ("FAO/WHO/OIE Guidelines *Trichinella*") has been presented to the CCFH during its 43rd meeting~~."

Rationale: The purpose of this paragraph is unclear – there is no reason for a Codex guidance document to mention activities that took place at a meeting. If part of it is retained, the sentence would need to be rewritten to delete the reference to the 43rd meeting of the CCFH and to describe the relevance of a generic risk profile.

Paragraph 19. We recommend the following revisions to this paragraph:

"Epidemiological evidence to support decisions on control measures can be gathered from a range of sources. As ~~an~~ example<u>s</u>, both industry and the ~~C~~<u>c</u>ompetent ~~A~~<u>a</u>uthority may have historical records on test results <u>and on-going national surveillance results</u> from pig populations <u>using</u> ~~(~~serology~~)~~ <u>from live pigs</u> and <u>muscle tissue digestion procedures from</u> slaughtered pigs. <u>In addition to testing data, s</u>~~S~~urvey data from other domestic species and wildlife can ~~will~~ add to epidemiological information for a compartment or region. Human health surveillance data <u>can be</u> ~~is~~ important in assessing any residual risks that may occur in regions or countries where there is an extremely low prevalence of *Trichinella*, even though attribution of any human cases to a particular source may be difficult."

Rationale: Editorial changes and clarification.

6.3 Risk Assessment Policy and Risk Assessment

Paragraph 20. Delete this paragraph.

"~~In the case of *Trichinella* in pig meat, elaboration of risk assessment policy and risk assessment was not deemed [by CCFH] in the application of a RMF approach.~~"

Rationale: The purpose of paragraph 20 is not clear, and it does not seem necessary. If it is retained, the paragraph should be clarified to explain why risk assessment policy and risk assessment were not deemed necessary.

SECTION 7 –IDENTIFICATION AND SELECTION OF CONTROL MEASURES USING A RISK-BASED APPROACH

7.2 Availability of post-slaughter control measures

Paragraph 24. We recommend replacing paragraph 24 with the following:

"<u>If a *Trichinella*-positive carcass is identified during slaughter testing, the competent authority should be notified. The competent authority can then decide what follow-up actions are necessary.</u> ~~Feedback information loops to the farm of origin are required if a positive confirmed animal is detected so that intensified on farm controls can be implemented (*ref OIE*).~~"

Rationale: Paragraph 24 needs to provide more flexibility in regards to the authority of the competent authority of each country. Many regulatory agencies cannot force certain management conditions. The proposed revisions help improve clarity.

7.2.1 Testing

Paragraph 29. We recommend the following revisions to paragraph 29:

"Laboratory testing <u>by artificial digestion</u> requires a minimum of ~~1~~ <u>5</u> g of tissue from a predilection site to provide a minimum sensitivity of ~~3~~ <u>1</u> larvae per gram of tissue. ~~In endemic areas, 3 g of tissue should be used (FAO/WHO/OIE Guidelines).~~ However, it should be noted that testing according to this methodology does not have 100% sensitivity."

Rationale: It is better to have a consistent testing approach so we are proposing the minimum testing size be listed as "5 g" of tissue as several bodies have this minimum (e.g., the FAO document says 5 grams, not 3, as recommended for endemic areas). Since it is suggested that meat containing 1 larvae per gram or greater can cause human disease, to detect an infection of 1 larvae per gram, a 5 gram sample is needed (a 1 gram sample will reliably detect an infection of 3 larvae per gram and greater).

7.2.1 Freezing

Paragraph 30. The following revisions are recommended:

"Freezing of ~~carcasses~~ pork should utilise freezing regimes that ensure lethality for all parasites in different portions of meat or whole carcasses. Use of this method for inactivation of *Trichinella* spp. that are not cold tolerant should be in accordance with validated parameters such as those described in ~~Example regimes given below are from~~ the "Recommendations on Methods for the Control of *Trichinella* in Domestic and Wild Animals Intended for Human Consumption prepared by the International Commission on Trichinellosis (ICT) Standards for Control Guidelines Committee"[1] ~~for inactivation of *Trichinella* spp which are not cold tolerant~~."

~~Diameter/thickness meat~~	~~Required temperature °C (°F)~~	~~Minimum time~~	~~Place of measurement~~
~~< 15 cm~~	~~-15 (5)~~	~~20 days~~	~~Room~~
~~< 15 cm~~	~~-23 (-10)~~	~~10 days~~	~~Room~~
~~< 15 cm~~	~~-29 (-20)~~	~~6 days~~	~~Room~~
~~15-69 cm~~	~~-15 (5)~~	~~30 days~~	~~Room~~
~~15-69 cm~~	~~-23 (10)~~	~~20 days~~	~~Room~~
~~15-69 cm~~	~~-29 (-20)~~	~~12 days~~	~~Room~~
~~All~~	~~-18 (0)~~	~~106 hours~~	~~Centre of cut~~
~~All~~	~~-21 (-5)~~	~~82 hours~~	~~Centre of cut~~
~~All~~	~~-23.5 (-10)~~	~~63 hours~~	~~Centre of cut~~
~~All~~	~~-26 (-15)~~	~~48 hours~~	~~Centre of cut~~
~~All~~	~~-29 (-20)~~	~~35 hours~~	~~Centre of cut~~
~~All~~	~~-32 (-25)~~	~~22 hours~~	~~Centre of cut~~
~~All~~	~~-35 (-30)~~	~~8 hours~~	~~Centre of cut~~
~~All~~	~~-37 (-35)~~	~~½ hour~~	~~Centre of cut~~

Rationale: Edits for clarification. The chart should be deleted, as it is not comprehensive of the different existing time/temperature recommendations and may preclude use of different science-based time/temperature combinations by competent authorities. Not including a table will allow for flexibility for changes in the science of freezing inactivation of *Trichinella*.

7.2.3 Cooking and irradiation

We recommend editing the heading to state:

"7.2.3 Cooking, curing and irradiation"

Rationale: Editorial change.

Paragraph 31. We recommend the following revisions to paragraph 31:

"The ~~possible~~ use of ~~these methods~~ cooking or curing to inactivate *Trichinella* should be in accordance with validated methods such as those described in ~~take into account~~ the "Recommendations on Methods for the Control of *Trichinella* in Domestic and Wild Animals Intended for Human Consumption prepared by the International Commission on Trichinellosis (ICT) Standards for Control Guidelines Committee". For inactivation by irradiation, t~~T~~he General S~~s~~tandards on I~~i~~rradiated F~~f~~ood should ~~also~~ be taken into account."

Rationale: Changes to include reference to curing, along with editorial changes.

7.3. Selection of risk-based control measures

7.3.1. Risk-based approach

Paragraph 32. Edit paragraph 32 as shown below:

"Based on the risk determination by OIE guidelines on pre-harvest management, pigs may require different levels of post-slaughter testing or processing. ~~an analysis of the epidemiology at the farm, compartment, region or country level, a risk based approach to control of *Trichinella* will involve different levels of laboratory testing of slaughtered pigs~~."

Rationale: To provide flexibility and to reference OIE, which is the source of pre-harvest management information.

[1] (http://www.med.unipi.it/ict/ICT%20Recommendations%20for%20Control.English.pdf)

7.3.2 Selection of measures

Paragraph 33. We recommend the following revisions to paragraph 33:

"In the absence of epidemiological evidence or designation of "free herd," "free compartment," or region or country of ~~"freedom" or~~ "negligible risk"[2] of a slaughter population from *Trichinella*, all carcasses from domestic swine [over five weeks of age] ~~*(provisional for discussion)*~~ should be subject to ~~either~~ one or more of the following:"

Rationale: To provide flexibility and to show there can be more than one choice. Text for discussion should be in square brackets.

Paragraph 36. We recommend the following revisions to paragraph 36:

"Where derogations have been applied, the competent authority/veterinary authority will determine through a risk-based approach, what, if any, sentinel testing ~~of the live domestic pig population~~ will be required (See Section 9)."

Rationale: More flexibility should be provided in this paragraph to avoid being too prescriptive. For example, if pigs are from risk-free management systems, then testing a statisical sample has no relevance. At a very low prevalence, all pigs would have to be tested to draw any conclusions from testing. Statistical testing does not work for case finding at such a low prevalance.

Paragraph 37. We recommend that this paragraph be placed in square brackets.

[37. Quantitative examples of likely human health consequences given differences in *Trichinella* epidemiology and criteria used to establish population status are provided in Appendix X (*to be developed*).]

Rationale: The paragraph references information not yet available. It is not clear what material will be provided and when this appendix will be developed. Therefore until it is clear what this information will be, this paragraph serves as a placeholder, and should be in square brackets. We do not believe the document should be advanced until this is clarified, as this paragraph may not be needed.

SECTION 8 IMPLEMENTATION OF RISK BASED CONTROL MEASURES

Paragraph 39. We recommend the following revisions to this paragraph:

"Implementation of selected control measures will be highly dependant on official recognition by the c~~C~~ompetent a~~A~~uthority / v~~V~~eterinary a~~A~~uthority of the *Trichinella* status of the herd, compartment, region, or~~f~~ country."

Rationale: Editorial changes.

8.4 Wild boars and cross breeds

Paragraph 40. We recommend the following editorial revisions:

"~~Wild boars and cross breeds intended for human consumption should be subjected to Trichinella control according to a risk-based approach. Certain Trichinella present in wild boars are resistant to freezing. Where information is not available on the specific freezing conditions that may effectively kill these species meat of~~ All wild boars and cross-breeds intended for human consumption should be tested in accordance with the diagnostic techniques recommended in Chapter 2.1.16. of the OIE T~~t~~errestrial Manual (B1) ("digestion method") or an appropriate alternative validated method.

Positive carcases should be disposed of according to the competent authority."

Rationale: The ICT recommends that all wild boar be tested by digestion. That would be the only way to determine if the individual animal harbors a freeze-resistant species/genotype of *Trichinella*.

SECTION 9 MONITORING AND REVIEW

Paragraphs 41-50. Delete these paragraphs. The Working Group should develop text related to monitoring and review of post-harvest controls.

~~***9.1. "Trichinella free" herds/compartments***~~

[2] Noting that quantification of these parameters has yet to be agreed by OIE.

~~41. [The domestic swine should maintain under controlled housing conditions in accordance with all conditions in Article 8.13.3. of the new OIE *ad hoc group* draft proposal .These conditions should be verified at an appropriate frequency by the Veterinary Authority.~~

~~42. All sows and boars should be tested as sentinel monitoring *(details to be developed using a risk-based approach)* with a digestion method.~~

~~43. Feedback should be provided from the slaughterhouse to the herd or compartment of origin.~~

~~44. The status should be withdrawn:~~

~~• if the outcome of the audit is not favourable or~~

~~• if a positive domestic swine is detected by a digestion method.~~

~~45. The status should be restored when:~~

~~• Appropriate remedial actions have been taken to the satisfaction of the Veterinary Authority when the outcome of an audit was not favourable, or~~

~~• The conditions in 8.1 or 8.2 are again fully complied with in case a positive animal was detected~~

~~by a digestion method.]~~

~~***9.2 Trichinella "negligible risk" countries or regions***~~

~~46. [All sows, boars and wild boars should be tested as sentinel monitoring with a digestion method. Other susceptible wildlife should be tested at least if intended for human consumption.~~

~~47. Feedback should be provided from the slaughterhouse to the herd or compartment of origin and to the relevant authority monitoring the status of the region or country.~~

~~48. Within the region/country, finishing pigs should be tested with a digestion method if introduced~~

~~• from regions or countries of unknown farm health status, or~~

~~• not from free herds/compartments; and/or~~

~~• not tested by serology in accordance with Article 8.13.3. of the new OIE *ad hoc group* draft proposal .~~

~~49. [The status should be withdrawn~~

~~• if a positive domestic pig is detected.~~

~~• if a positive wild boar or other wildlife is detected and the prevalence in susceptible wildlife is above 1 per thousand using a rolling window].~~

~~50. The status should be restored when the country or region again fully complies with the conditions in 8.3.]~~

Rationale: OIE should establish the on-farm standards and appropriate monitoring. Risk varies by management type, and testing sows and boars has no predictive value for finishers raised in total confinement under certifed production parameters. The document can reference OIE when they provide their guidance.

SECTION 10 RISK COMMUNICATION

Paragraph 55. We recommend the following revision to paragraph 55:

"Consumers should be made aware of the risk of becoming infected with *Trichinella* after consumption of pork ~~meat~~, either raw or partially treated, <u>as is appropriate for the *Trichinella* status of the pork in the country</u>."

Rationale: Editorial clarification.

Appendix II: Proposed Draft Guidelines for Control of Specific Zoonotic Parasites in Meat: *Cysticercus bovis* in Meat of Domestic Cattle

GENERAL COMMENTS

Before the *C. bovis* appendix moves forward, the U.S. feels that several points need clarified in the document. In particular, paragraphs 33 and 36 (section 9) contain the bracketed statement "To be further developed, taking into account OIE guidance for on-farm control and reference to quantitative examples

illustrating likely risks to human health." We do not believe that the document should be advanced until the additional information is added.

There is strong inference in this document about testing of cattle as a primary source of data for risk. The fact that laboratory testing data are available for a very limited number of countries is a major concern. Secondly, the resources required for these types of data are cost prohibitive for most countries. Sources of data should not be limited to testing data and public health records; there should be reference to allowing other types of information for supporting risk decisions.

The Working Group agreed to use common names in the text include a footnote for the technical (scientific) names. The footnote needs to be created. Also, the full title and reference of the FAO/WHO/OIE Guidelines are needed.

There are several places in the text that refer to "beef meat." The United States recommends that the term be changed to "beef," as this is the meat derived from cattle.

SPECIFIC COMMENTS

In the comments below, text to be removed is indicated by strike outs and text to be added is underlined.

Section 1 - Introduction

Add the following paragraph after paragraph 4:

4 bis. Example situations where the epidemiology and prevalence of infestation in the slaughter population differs according to country, region or farming system are provided so as to inform risk management decisions at the national level.

Rationale: This text, which is the second sentence in paragraph 8, is more relevant to the introduction than the scope.

Section 2 – OBJECTIVES

Paragraph 5. It was noted from the working group meeting that this paragraph needs to be clearer to indicate the objective is control/prevention of human cases (versus controlling cattle cases). The FAO/WHO/OIE Guidelines for surveillance, prevention and control of taeniasis/cysticercosis addresses control of cattle cases.

SECTION 3 – SCOPE AND USE OF THE GUIDELINES

3.1 Scope

Paragraph 7. We recommend that square brackets be placed around the parenthetical phrase: "[(including Bubalus and Bison species)]."

Rationale: The Working Group did not have the answer to the question about whether there is evidence of cysticercosis in other bovine to extend the scope. It was understood that OIE would check on this. At the Working Group meeting it was also thought that wild bovine were not a reservoir, which needs to be clarified.

Paragraph 8. Modify the paragraph as shown below and move the second sentence to introduction.

"The Guidelines, used in conjunction with the FAO/WHO/OIE guidelines for the surveillance, prevention and control of taeniasis/cysticercosis, apply to all steps in a "primary production-to-consumption" food chain. ~~Example situations where the epidemiology and prevalence of infestation in the slaughter population differs according to country, region or farming system are provided so as to inform risk management decisions at the national level~~."

Rationale: This Codex guidance is for post-harvest.

3.2 Use

Paragraph 9. Insert second sentence from paragraph 8 and revise paragraph 9 as shown:

"The Guidelines develop specific guidance for control of cysticercosis in meat according to ~~a "primary production-to-consumption" food chain and~~ a risk-based approach to selection of post-harvest control measures as risk management options. The Guidelines are supplementary to and should be used in conjunction with the *Code of Practice – General Principles of Food Hygiene* (CAC/RCP 1-1969), the *Code*

*of Hygienic Practice for Meat (*CAC/RCP 58-2005) and the FAO/WHO/OIE Guidelines for the surveillance, prevention and control of taeniasis/cysticercosis."

Rationale: Edited for clarity.

6.2 Risk profile

Paragraph 16. We recommend revisions to paragraph 16 as shown below:

Epidemiological evidence to support decisions on control measures can be gathered from a range of sources. Governments ~~will likely~~ may have historical records on test results from slaughter populations and farm investigations. Human health surveillance and treatment data, where available, are useful in assessing any residual risks that may occur in different regions or countries.

Rationale: For clarification. The text in this paragraph implies that laboratory testing of populations is the norm, rather than slaughter inspection evidence as a currently more viable option. This could be problematic for countries that do not have resources for this type of evidence. We suggest that the Working Group develop text that supports slaughter inspection evidence.

6.3 Risk assessment policy and risk assessment

Paragraph 17. Delete this paragraph.

"~~In the case of cysticerscosis in beef meat, elaboration of risk assessment policy and risk assessment was not deemed necessary [by CCFH] in the application of a RMF approach~~."

Rationale: The purpose of paragraph 17 is not clear, and it does not seem necessary. If it is retained, the paragraph should be clarified to explain why risk assessment policy and risk assessment were not deemed necessary.

7.2.1 Post mortem inspection procedures

Paragraph 20, second sentence. We propose the following revisions to this paragraph:

"Suspect cysts ~~will~~ should be subject to laboratory identification according to validated standard techniques."

Rationale: "Should" is the more appropriate word here for a Codex document. With respect to standard techniques, it is important that test procedures are validated.

Paragraph 21, second paragraph and paragraph 22. The footnotes that references Tables 1-3 should be put in square brackets.

[Refer Table 1 attached to the Meeting Report accompanying these draft guidelines]

[Refer Tables 2 and 3 attached to the Meeting Report accompanying these draft guidelines]

Rationale: The WG agreed that the country-comparison tables would be deleted from the final document and were only being used as a reference for countries during the development of the document. As a reminder that this will be deleted, the text should be put in square brackets until it is time to delete it.

7.2.4 Traceability system for slaughtered cattle

Revise the first sentence of paragraph 25 as follows:

"A traceability system between slaughterhouse and farm should be available so the information on carcasses positive for *C. bovis* from the slaughterhouse can be utilized…"

Rationale: Section 7.2 "Post-slaughter control measures" focuses on risk-based options for countries when a positive carcass is found. Therefore, it is recommended that the paragraph be edited as proposed to clarify that the traceability systems is for slaughtered cattle that are positive for *C. bovis*.

7.3. Selection of risk-based control measures

7.3.2. Selection of measures

Paragraph 27. We recommend that the 2nd and 3rd bullets be combined as shown below.

- Further post mortem procedures applied to an individual carcass or a line of carcasses when a suspect *C. bovis* cyst is detected;
- ~~Further post mortem inspection procedures applied to a line of carcasses after a "suspect" *C. bovis* is detected;~~

Rationale: Removes some redundancy.

Paragraph 27. Revise the fifth bullet as shown below:

- "Carcass disposition requirements, including post-harvest treatment ~~and freezing~~ regimes applied to carcass parts."

Rationale: Freezing is one of the post-harvest treatments and should not be singled out as a treatment that is different from other post-harvest treatments.

Paragraph 30. We recommend that this paragraph be placed in square brackets.

[30. Quantitative examples of likely human health consequences given differences in *C. bovis* epidemiology and post mortem inspection regimes are provided in Appendix X (*to be developed*).]

Rationale: The paragraph references information not yet available. It is not clear what material will be provided and when this appendix will be developed. Therefore until it is clear what this information will be, this paragraph serves as a placeholder, and should be in square brackets. We do not believe the document should be advanced until this is clarified, as this paragraph may not be needed.

SECTION 8 IMPLEMENTATION OF RISK BASED CONTROL MEASURES

Paragraph 32. We recommend the following revisions to this paragraph:

"Where there is a sufficiency of evidence based on public health data, ~~and~~ slaughter house data, and/or other appropriate data of a very low risk of transmission of taeniasis through the food chain, the ~~C~~competent ~~A~~authority/ ~~V~~veterinary ~~A~~authority may apply a different intensity of routine post-mortem inspection."

Rationale: The data sources should not be limited to just two sources.

SECTION 10 RISK COMMUNICATION

Paragraph 39. We recommend the following revisions to this paragraph:

"The c~~C~~ompetent a~~A~~uthority / v~~V~~eterinary a~~A~~uthority should ~~make available monitoring and investigation information to all interested parties~~ apply transparency (e.g., make available monitoring and investigation information) when there is a public health risk and conduct public education campaigns as appropriate. ~~e.g. tourists.~~

Rationale: Paragraph 39 is somewhat prescriptive. The proposed edits provide both flexibility and clarity. The reference to "tourist" does not make sense if the "public" is the subject of the educational campaigns.

WORLD ORGANISATION FOR ANIMAL HEALTH (OIE)

(i) General comments

The OIE supports the development of the Guidelines for control of specific zoonotic parasites in meat: *Trichinella* in meat of suidae and appreciates the action taken by the Codex Physical Working Group to include cross references to relevant text in the OIE *Terrestrial Animal Health Code* and the *Manual of Diagnostic Tests and Vaccines for Terrestrial Animals*.

(ii) Specific comments

Point 15 on page 2 of the report

The reference to 'chapter 2.1.16. of the OIE terrestrial code' should be amended to read 'Chapter 2.1.16. of the OIE Manual of Diagnostic Tests and Vaccines for Terrestrial Animals.'

Paragraph 11.

The diagnostic techniques referred to in the Guidelines are those of the *OIE ~~Terrestrial~~ Manual of Diagnostic Tests and Vaccines for Terrestrial Animals (Chapter 2.1.16. Trichinellosis).*

Rationale: Manual title was incorrect

Footnote 1 on page 6

[1] This definition is taken directly from OIE ~~t~~*Terrestrial Animal Health Code* www.oie.int.

Rationale: Code title was incorrect

Paragraph 21.

At primary production, the most important risk factors for infestation of farmed swine are the

intentional feeding of food waste, or intentional or unintentional exposure to carcases of dead swine, or susceptible wildlife *(*FAO/WHO/OIE Guidelines *Trichinella.).* Although t~~T~~hese factors are very rarely encountered in controlled housing conditions, recommended control measures are described in the *Terrestrial Animal Health Code* draft Chapter 8.13. Infection with *Trichinella* spp., (under development).

Rationale: Chapter 8.13. recommends control measures for food waste and disposal of dead animals

Paragraph 22.

22. As regards prevention of *Trichinella* in pigs, reference is made to Article 8.13.3. ~~of new OIE *ad hoc group* draft proposal~~ in the *Terrestrial Animal Health Code* (chapter under development).

Rationale: provide a more accurate reference to OIE standard

Paragraph 24.

Feedback information loops to the farm of origin are required if a positive confirmed animal is

detected so that intensified on-farm controls can be implemented *(~~ref OIE~~ see Terrestrial Animal Health Code* draft Chapter 8.13. Infection with *Trichinella* spp., under development).

Rationale: it is appropriate to make a cross reference to Chapter 8.13 (under development)

Paragraph 25.

When laboratory testing is being performed on individual carcasses, those selected should be tested in accordance with the diagnostic techniques recommended in Chapter 2.1.16. of OIE ~~*terrestrial*~~ *Manual of Diagnostic Tests and Vaccines for Terrestrial Animals* (B1) ("digestion method").

Rationale: Manual title was incorrect

Paragraph 27.

Other diagnostic methods for *Trichinella* may be used if endorsed in the *OIE ~~Terrestrial~~ Manual of Diagnostic Tests and Vaccines for Terrestrial Animals* or if validated in accordance with an internationally accepted protocol.

Rationale: Manual title was incorrect

Paragraph 35.

A decision tool for selection of control measures is illustrated below:

Compliance with the requirements for *Trichinella* "negligible risk" country or ~~region~~ zone(see Article 8.1.~~3~~5 of the *Terrestrial Animal Health Code* - under development)~~?~~

Compliance with the requirements for "*Trichinella* free" herd~~/ or compartment~~ (see Article 8.1.6~~1 or 8.1.2~~ of the *Terrestrial Animal Health Code* - under development)~~?~~

Rationale: updated references. The term 'region' was changed to 'zone' as zone is the term used in the Terrestrial Code. The reference to compartment was deleted as there are currently no provisions for the use of compartmentalisation in Chapter 8.13. and the OIE considers that the current provisions for country and zone of negligible risk, as well as free herds, provides an appropriate basis for risk management.

Paragraph 38.

Testing procedures are described in Chapter 2.1.16 of the OIE ~~*terrestrial*~~ *Manual of Diagnostic Tests and Vaccines for Terrestrial Animals* (B1) and any consequential changes to on-farm ~~hygienic~~ biosecurity practices are described ~~by OIE (and Article 8.13.3. of new OIE *ad hoc group* draft proposal~~ in the *Terrestrial Animal Health Code* draft Chapter 8.13. (under development), ~~respectively)~~.

Rationale: corrected references

Paragraph 39.

Implementation of selected control measures will be highly dependent on official recognition by the Competent Authority / Veterinary Authority of the *Trichinella* status of the country, herd~~, compartment, region~~ or zone ~~of country~~.

8.1. Conditions for official recognition of Trichinella free herds

~~8.2. Conditions for official recognition of Trichinella free compartments~~

8.3. Conditions for official recognition of Trichinella "negligible risk" country or ~~region~~zone

[Paragraphs 8.1 to 8.3 will refer to draft OIE document and be completed when this draft has progressed]

Rationale: updated references. The term 'region' was changed to 'zone' as zone is the term used in the Terrestrial Code. The reference to compartment was deleted as there are currently no provisions for the use of compartmentalisation in Chapter 8.13. and the OIE considers that the current provisions for country and zone of negligible risk, as well as free herds, provides an appropriate basis for risk management.

Paragraph 40.

…. tested in accordance with the diagnostic techniques recommended in Chapter 2.1.16. of the OIE ~~terrestrial~~ *Manual of Diagnostic Tests and Vaccines for Terrestrial Animals* (B1) ("digestion method") or an appropriate alternative validated method.

Rationale: Corrected Manual title

Paragraph 41.

[The domestic swine should maintain under controlled housing conditions in accordance with all

conditions in Article 8.13.3. of the ~~new OIE *ad hoc group* draft proposal~~ *Terrestrial Animal Health Code* Chapter 8.13. - under development.These conditions should be verified at an appropriate frequency by the Veterinary Authority.

Rationale: corrected references