Appendix XLIX

CHECKLIST ON THE PRACTICAL APPLICATION OF COMPARTMENTALISATION FOR AVIAN INFLUENZA AND NEWCASTLE DISEASE

Introduction

This document discusses the practical implementation of the concept of compartmentalisation for two avian diseases, avian influenza (AI) and Newcastle disease (ND) in poultry.

Compartmentalisation is a procedure which may be implemented by a country to define and manage animal *subpopulations* of distinct health status within its territory, in accordance with the recommendations in the OIE Terrestrial Animal Health Code (the *Code*), for the purpose of disease control and/or international trade.

This document should be read in conjunction with the following OIE texts:

- *Code* chapter on zoning and compartmentalisation (1.3.5);
- *Code* chapters on AI (2.7.12) and ND (2.7.13);
- *Code* chapters on the evaluation of *veterinary services* (1.3.3 and 1.3.4);
- *Code* appendices on 'general guidelines on animal health surveillance' (3.8.1), 'guidelines on the surveillance for avian influenza' (3.8.9); and 'guidelines on surveillance for Newcastle disease (3.x.x – under development)
- *Code appendix general guidelines on the application of compartmentalisation' (3.y.y – under development)*
- *Code* appendix on the general principles for the 'identification and traceability of live animals' (3.5.1).

While zoning applies to an animal *subpopulation* defined primarily on a geographical basis (using natural, artificial or legal boundaries), compartmentalisation applies to an animal sub-population defined primarily by management and husbandry practices related to biosecurity. In practice, spatial considerations and good management play important roles in the application of both concepts.

The *Code* recommendations for *compartments* cannot be applied in all situations. The effective implementation of the concept of compartmentalisation depends *inter alia* on the epidemiology of the disease, country factors, environmental factors, the biosecurity measures which may be applicable, the health status of animals in adjacent areas, *surveillance* and the public/private sector relationship. Compartmentalisation may be particularly applicable in intensive industries where production systems are vertically integrated.

The document lists the principal issues which need to be addressed. Some issues are relevant to the infrastructure within which compartmentalisation for ND and/or AI may be effectively implemented, and others apply to the establishment and operation of individual *compartments*.

General principles applying to compartmentalisation

The responsibilities of the *Veterinary Authority* regarding the infrastructure within which compartmentalisation may be effectively implemented and which needs to be in place prior to the establishment of any *compartment*, include:

- to ensure that the *Veterinary Services* have been evaluated, at least with respect to their ability to oversee the establishment and management of *compartments* (see below for the key elements of an evaluation);

Appendix XLIX (cond)

- to ensure that effective partnerships have been developed between the *veterinary services* and the animal production and non-production sectors where there is a likelihood of compartmentalisation being applied; such partnerships may need to include related sectors such as equipment supply and maintenance, feed production and waste management;

- to ensure that an effective *animal identification* and *traceability* system is in place; depending on the animal sector, identification and registration may be done at the herd/flock, lot or individual animal level;

- to ensure that an effective certification system is in place to allow credible official certification of the health status of a *compartment*, and commodities that may be traded from it;

- to devise generic criteria, including for management and husbandry practices relating to biosecurity, which may be applicable generally to compartmentalisation;

- to devise model *biosecurity plans* in conjunction with interested animal sectors;

- to publicise the generic criteria and model *biosecurity plans* through official channels.

The key factors of an evaluation of the *Veterinary Services* of a country which proposes to implement compartmentalisation include:

- legislative and administrative infrastructures;

- independence in the exercise of official functions;

- coordination capability;

- adequacy of technical and financial resources;

- disease surveillance and diagnostic capability;

- knowledge of relevant animal production and non-production sectors;

- systems for the early detection of disease and emergency response;

- effective consultation with stakeholders;

- performance history, including the timeliness and accuracy of disease reporting.

For further details, reference should be made to *Code* chapters 1.3.3 and 1.3.4.

A model *biosecurity plan* should address all relevant factors including:

- the partnership(s) between the *veterinary services* and the relevant enterprise(s);

- the means of making a practical assessment of the resources required and available – financial, human and technical;

- the means of identifying the relevant *subpopulation* and its distinct animal health status, including through the *animal identification* and *traceability* system, and the relevant management and animal health records;

- the necessary *surveillance* and the means to implement it, and the procedures for the investigation and reporting of disease incidents;

- the components of the *establishment(s)* and/or other premises operated by an enterprise which would constitute the *compartment*, and the common biosecurity management system under which they operate (for example, animal housing facilities, animal transport routes, feed distribution systems, work procedures), using diagrams to show flowpaths, functional boundaries etc;

- the relevant epidemiological factors, particularly the potential pathways for the entry and spread of pathogen(s) that are the subject of compartmentalisation, and the associated risks;

- indicative sanitary measures which would be necessary to manage the risks relating to the distinct animal health status of the *subpopulation*;

- how the necessary sanitary measures would be incorporated into the management and husbandry practices of the *establishment(s)* and other relevant premises, to produce standard operating procedures (SOPs) for the *compartment*;

- how the SOPs for the *compartment* would be audited to ensure that they are in accordance with the *biosecurity plan;*

- how the risks would be regularly re-assessed and the SOPs of the *compartment* adjusted appropriately.

Responsibilities in implementing compartmentalisation for avian influenza and/or Newcastle disease

The *veterinary services* should be responsible for the following:

- to develop effective partnerships with managers in the poultry production sector and related sectors (such as equipment supply and maintenance, feed production and waste management), and leaders in other relevant avian sectors such as village poultry, small poultry farmer flocks, game bird flocks, ornamental birds, racing pigeons, and zoological collections;

- through such partnerships, to gain a good knowledge and understanding of the structure and operations of the various avian sectors (production and non-production);

- through effective *surveillance*, to ensure a good knowledge and understanding of the avian disease situation (particularly for AI and ND) within and outside the compartment, including in wild birds. This *surveillance* should be conducted in accordance with *Code* Appendix 3.8.1 'general guidelines for animal health surveillance'; Appendix 3.8.9 'guidelines for the surveillance of avian influenza'; and Appendix 3.x.x 'surveillance for Newcastle disease'(under development);

- to support surveillance through the testing of samples at laboratories operating in accordance with the *Manual*. Each *laboratory* that conducts testing should have systematic procedures for rapid reporting of disease results to the *Veterinary Administration*. Where appropriate, results should be confirmed by an OIE reference *laboratory*.

- to provide scientific data that explain the epidemiology of AI and ND, and the associated risk pathways, in the part of the country in which *compartments* will be located;

- through these partnerships, to draw up *biosecurity plans* for particular *compartments* based on agreed SOPs;

- to regularly review scientific data on AI and ND and re-assess the risk factors, to ensure that the SOPs continue to be appropriate to the situation;

- to develop and implement audit and review procedures to ensure that the agreed SOPs are being implemented.

Appendix XLIX (cond)

The avian production and relevant other avian sectors should be responsible for the following:

- to develop effective partnerships with the *veterinary services*;
- to enhance the awareness of bird owners, bird handlers and hobbyists etc in the non-production sectors, and poultry workers, transporters, maintenance personnel etc, in the production sector, of general biosecurity principles and particularly those applicable to AI and ND;
- to report accurately and in a timely manner to the *Veterinary Services* on disease incidents occurring in the sector;
- to encourage the management of *establishments* and other relevant premises in a generally biosecure manner; for example through the development and application of codes of practice;
- to work with the *Veterinary Services* in the development of *biosecurity plans* and in the operation of *compartments* in accordance with these *biosecurity plans.*

While these responsibilities should be addressed in partnership, the final authority for the purposes of disease surveillance and reporting, disease control and veterinary certification for intemational trade lies with the *Veterinary Authority*.

Elements of a *biosecurity plan* for a *compartment*

The *biosecurity plan* should clearly define the *compartment* through:

- a description of the *establishment(s)* and other relevant premises under common management practices related to biosecurity;
- a description of the avian *subpopulation* comprising the *compartment* (the epidemiological unit) based on the application of *animal identification* and *traceability* in accordance with the *Code*; depending on the sector, this may be done at the flock, lot or individual bird level;
- a description of the partnership between the *Veterinary Services* and the relevant establishment(s), and documentation of their respective responsibilities;
- a description (for example through process flowcharts) of the functional relationships between components of the *compartment* showing their contribution to the epidemiological separation between poultry in the *compartment* and other *subpopulations*, including through
    - common management or ownership of poultry,
    - adoption of industry plans that contain biosecurity guidelines eg health improvement plans and breed registries,
    - integration or grouping of *establishments* supplying poultry for production or slaughter with related functional units (such as feed mills, slaughterhouses, rendering plants etc);
- a description of the spatial factors relating to pathways of AI or ND transmission to ensure that there is adequate physical separation of the birds in the *compartment* from nearby animal *subpopulations* of different or unknown health status, including
    - the locations and the AI and/or ND status of the nearest domestic and wild flocks,
    - for AI, the locations of the nearest domestic and wild pig herds,
    - for AI, the locations of any human cases of infection with HPAI;

- the location of bird houses within the *compartment* with regard to birds of lower or unknown health status outside the *compartment*; the spatial separation that would preclude direct contact or aerosol spread would be a minimum of 300 metres for AI and a minimum of 1-2 Km for ND;

- a description of the relevant environmental factors that may affect exposure to the pathogen(s), including
  - natural windbreaks and other barriers to pathogen spread,
  - existence of wetlands or other geographic features attractive to large numbers of wild birds;
  - expected pathogen survivability in the local environment,
  - seasonal factors;

- documentation of the *surveillance* conducted for AI and/or ND to ensure that the *subpopulation* of birds in the *compartment* complies with the defined health status of the *compartment* (in accordance with the measures stipulated in *Code* Chapter 2.7.12 (Avian influenza) and/or 2.7.13 (Newcastle disease). Essential components include:
  - the documented baseline health status of the subpopulation before the *compartment* was established, indicating the dates of last disease occurrence (if any), the number of outbreaks and the methods of disease control that were applied,
  - evidence of compliance with *Code* Appendix 3.8.1, ('general guidelines on animal health surveillance); Appendix 3.8.9 'surveillance for avian influenza; and Apendix 3.x.x. 'guidelines on surveillance for Newcastle disease' (under preparation).
  - procedures for the early detection of disease in the event that AI or ND enters the comp artment; for example, through the monitoring of parameters such as increased morbidity or mortality, reduced feed or water consumption, changes in behaviour, reduced egg production,
  - procedures for investigation of a suspect *case*, including reporting and subsequent management;

- a description of the potential pathways for the entry into and spread of AI and/or ND within the compartment, and of the associated risks; consideration should be given to bird movements; rodents; wild birds; aerosols; arthropods, vehicles, people, biological products, equipment; fomites, feed; waterways; drainage; and to the survivability of AI/ND in the environment.
  - a description of the procedures in place to regularly review scientific data relating to these pathways and risks;

- documentation of
  - the critical control points for each pathway and the measures to manage each critical control point,
  - standard operating procedures (SOP) including for the implementation, maintenance and monitoring of these measures at the level of the *compartment* and at the level of *establishment(s)* and other relevant premises,
  - the steps taken by the *Veterinary Services* to verify the baseline health status of birds in the *compartment*;

- full documentation of the *compartment's* SOPs, to provide clear evidence that they are adequate to meet the definition of the *compartment*, including

Appendix XLIX (cond)

- personnel training
  - generic hygiene and biosecurity principles and procedures
  - procedures applicable to maintaining biosecurity for AI and/or ND
  - the specific procedures to be followed, such as human and animal movement controls,
- quality assurance schemes (if any) in operation,
- animal movement controls
  - in the case of poultry that are not confined to houses, for example free-range domestic poultry, procedures are in place to prevent their contact with animals from outside the compartment, especially wild birds
  - facilities are in place, for example netting, to prevent other animals especially wild birds from entering bird houses
  - for an AI *compartment*, procedures are in place to prevent other epidemiologically relevant animals (eg cats, pigs) from entering the *compartment*
  - if birds or hatching eggs are sourced from outside the *compartment*, procedures are in place to ensure that the birds are sourced only from flocks of approved status for AI and/or ND
  - the bird/hatching egg handling and transport procedures operate in a biosecure manner through the use of either equipment dedicated to the *compartment* or appropriately cleaned and disinfected equipment
  - if the *establishment(s)* is/are not run on an all-in-all-out production basis, procedures are in place to ensure the appropriate separation between production groups and from newly introduced birds,
- poultry health
  - appropriate flock breeding and production records are available
  - morbidity and mortality history is available
  - details of medications used (including vaccines) and treatment outcomes are available
  - arrangements for veterinary involvement in flock health, and disease diagnosis and reporting are appropriate
  - procedures are in place for the identification, handling, storage and disposal of sick and dead birds in a biosecure manner; these procedures comply with the relevant environmental legislation,
- human movement controls
  - there is functional boundary fencing, with cleared areas and secure access points, and appropriate signage
  - procedures are in place, for example through the use of colour-coded clothing and one-way entries, to regulate the movement of humans within the *compartment*

- procedures are in place for regulating visitor access to premises in the *compartment*, for example through the use of a visitor logbook, restrictions on prior contact with birds outside the compartment, the use of disinfectant footbaths at all entries, and procedures for hand-washing and the provision of clean clothing and footwear for visitors who may come into contact with birds in the *compartment*

- procedures are in place for regulating the access and movements of visiting workers and their equipment (including veterinarians, contractors, maintenance personnel, bird handlers and feed delivery personnel) to premises and to bird houses in the *compartment*, for example through the use of a visiting worker logbook, restrictions on prior contact with birds outside the *compartment*, the use of footbaths with disinfectant at all entries, the use of hand-washing, clean clothing and footwear

- procedures are in place for ensuring that different groups of birds within the *compartment* are handled in a biosecure manner, for example through handling young birds before older birds, segregating birds under suspicion of health problems, working with the flow of bird movements in the production cycle not against it

- procedures are in place for dealing with emergencies that threaten the health status of the *compartment* through additional measures such as showering and complete clothing changes for workers dealing with 'at risk' poultry

- restrictions are in place regarding employee contact with birds outside the *compartment*, for example: employees are not permitted to own birds or other epidemiologically relevant animals, and must have no contact with birds of lesser or unknown health status within 48 hours prior to entering the *compartment*,

o controls over vehicles

- procedures are in place for regulating visitor vehicle access to the premises

- procedures are in place for regulating the activities of work vehicles relevant to the *compartment* (such as feed delivery, bird delivery and pickup, litter delivery and removal, and maintenance vehicles) for example

  - those operating solely within the *compartment* are subject to regular cleaning and disinfection

  - those with access to premises outside the *compartment* are subject to full cleaning and disinfection immediately upon entering the *compartment*,

o security of feed and water sources

- the water supply is known to be free from contamination with avian pathogens through the use of either mains water or appropriately treated water (for example through chlorination or UV treatment) from other sources

- if any feed is sourced from outside the *compartment*, that feed supply is known to be free from contamination with avian pathogens through the use of approved/audited suppliers and production methods

- the feed transport and handling facilities operate in a biosecure manner through the use of either dedicated equipment or equipment which is cleaned and disinfected before being used for feed destined for use in the *compartment*,

Appendix XLIX (cond)

- management of environmental risks
  - there is no standing water or other sources of attraction for wild birds on the premises or close by
  - there are no unprotected heaps of feed or manure/litter, or used equipment or housing material close to bird houses or free-range birds,
- buildings and equipment
  - bird house ventilation air inlets and outlets are suitably oriented to minimise the likelihood of disease spread
  - equipment coming into contact with birds is either dedicated to the *compartment* or is appropriately cleaned and disinfected immediately upon entry to the *compartment*
  - at the end of a production batch, the bird houses are cleaned and disinfected, and then closed until next use, and all litter removed from the *compartment*;

- documentation of the programming and performance of audits, to verify the AI and/or ND status of the compartment, through regular re-assessment of the risks and of the continued appropriateness of the SOPs.

Appendix L

Original: English
January 2007

REPORT OF THE FITH MEETING OF THE OIE *AD HOC* GROUP ON IDENTIFICATION AND TRACEABILITY OF LIVE ANIMALS

Paris, 23-25 January 2007

_____

The OIE *ad hoc* Group on Identification and Traceability of Live Animals (hereafter referred to as the *ad hoc* Group) met at the OIE Headquarters from 23 to 25 January 2007.

The members of the *ad hoc* Group and other participants are listed at Appendix I; apologies were received from Prof. Hassan Aidaros and Dr Musa Fanikiso. The Agenda adopted is given at Appendix II.

On behalf of the Director General of the OIE, Dr Sarah Kahn, Head of the International Trade Department, welcomed all members and noted the good work done by the *ad hoc* Group in producing a set of general principles on the identification and traceability of live animals that were adopted by the OIE International Committee in May 2006. She said that a set of amendments to these principles have been already submitted to OIE Member Countries by the Terrestrial Animal Health Standards Commission (hereafter referred to as the Terrestrial Code Commission). Dr Kahn introduced OIE Member Countries' comments on the draft guidelines for the design and implementation of animal traceability and explained that these comments had already been examined by the Terrestrial Code Commission and by the Animal Production Food Safety Working Group (APFSWG). She highlighted the fact that the recommendation from Member Countries, as well as from the Working Group and the Terrestrial Code Commission, is to aim at developing a document which contains broad recommendations to Member Countries on the objectives and desired outcomes of an animal identification system and to refrain from providing prescriptive recommendations. Dr Kahn commented that the current draft guidelines were drafted in light of experience primarily in traceability systems for cattle and in future there might be a need to assess if more work was necessary to ensure the guidelines are fully applicable to other livestock species. She concluded by thanking the Chair for his willingness to guide this important work.

The Chair, Dr Luis Barcos, OIE Regional Representative for the Americas, said that the *ad hoc* Group should revise the draft guidelines taking into account the comments from Member Countries and from the Terrestrial Code Commission and the Working Group. He questioned whether the OIE could provide examples of animal identification systems present in OIE Member Countries.

Dr Annamaria Bruno, Food Standards Officer of the Codex Alimentarius Secretariat, informed the *ad hoc* Group about discussions at the 15th Session of the Codex Committee on Food Import and Export Inspection and Certification (CCFICS). She advised that the Codex Delegation of Norway has undertaken to prepare a discussion paper on the need for further guidance on traceability/product tracing for the next meeting of CCFICS in November 2007.

Appendix L (contd)

The *ad hoc* Group addressed Member Countries' comments and revised the draft guidelines for the design and implementation of animal traceability accordingly (see Appendix III). As the comments received from Member Countries related to an earlier version of the draft guidelines, some of them were not directly applicable to the latest text. Nevertheless, the *ad hoc* Group reflected the intent of these suggestions in producing the current version of the document. The Guidelines have been significantly reorganised in relation to the version presented in July 2006 report of the *ad hoc* Group and they are therefore presented as clean text (no track changes) to the members of the Terrestrial Code Commission for consideration.

The *ad hoc* Group discussed and carefully addressed Member Countries' comments about the degree of prescription in the guidelines. The revised document follows the general principles in Appendix 3.5.1. of the OIE *Terrestrial Animal Health Code* (hereafter referred to as the *Terrestrial Code*). The *ad hoc* Group noted the comment of the APFSWG to the effect that, in the absence of guidelines, individual Member Countries might develop systems without consulting trading partners, causing potential disruption of trade in future. Accordingly, the *ad hoc* Group decided to retain sufficiently specific information to help Member Countries undertaking the development of an animal identification system. The *ad hoc* Group supported the recommendations of the Terrestrial Code Commission and APFSWG that the guidelines should be included in the *Terrestrial Code*.

The *ad hoc* Group noted that these draft guidelines are based on the general principles adopted in May 2006 by the International Committee of the OIE and that the Terrestrial Code Commission will likely submit these draft guidelines to OIE Member Countries for consideration before proposing them for adoption. This provides for consideration of Member Countries' comments and possible amendment of the text before finalising it.

The *ad hoc* Group clarified that the desired outcomes mentioned in the draft guidelines fall within the OIE mandate. However, the *ad hoc* Group agreed that each country may use animal identification to address additional desired outcomes, such as genetic improvement and product quality.

The *ad hoc* Group considered that creating a legal framework for identification and traceability systems is a fundamental step for a country wishing to implement such systems for animal and public health purposes (as stated in the general principles), especially to enable Veterinary Services to access the information that is required according to the objectives. Such an approach does not preclude the implementation of codes of practices by private companies.

The *ad hoc* Group addressed the comment made by several Member Countries on the identification of the responsible body for the designing and managing national animal identification systems. It noted the proposed revision of principle 6 in Appendix 3.5.1. presented by the Terrestrial Code Commission in its October 2006 meeting report and agreed that this amendment gives Member Countries appropriate flexibility in defining the roles and responsibilities of the Veterinary Services and other Competent Authorities. The *ad hoc* Group clarified that animal identification should fall within the responsibility of the Veterinary Administration, while responsibility for products elsewhere in food production continuum may be shared with, or fall entirely within the responsibility of another Authority. The *ad hoc* Group therefore revised principle 6 of Appendix 3.5.1. for consideration by the Terrestrial Code Commission, as follows:

> "6. *Animal identification* and *animal traceability* should be under the responsibility of the *Veterinary Administration*. It is recognised that other Authorities may have jurisdiction over other aspects of the food chain, including the traceability of food."

The *ad hoc* Group considered the comments of the APFSWG regarding the use of the term "performance outcomes" and provided clarification by defining (for the purposes of the Guidelines) and explaining three key terms used in the Guidelines, i.e. 'performance criteria', 'scope' and 'desired outcomes'. In response to a Member Country's comment, the *ad hoc* Group proposed a definition (for use in the Guidelines) of "transhumance" and suggested that the Terrestrial Code Commission consider whether this term and proposed definition should in fact be included in Chapter 1.1.1. of the *Terrestrial Code* as the term is used elsewhere in the book. The *ad hoc* Group noted the APFSWG suggestion to insert the concept 'proportionality of risk' into the guidelines but did not include this point since it considered the fact that such addition would increase the complexity of the draft guideline and would assist in explaining requirements for animal identification and traceability systems.

The *ad hoc* Group noted that these guidelines were not intended as a 'stand alone' document. Rather, they should be read in the context of other OIE standards, in particular the disease chapters. It also remarked the importance of taking into account relevant Codex Alimentarius texts with the goal of sharing information throughout the food chain. These points (already present in the general principles) are reflected in the draft guidelines.

The *ad hoc* Group discussed whether a definition for "animal movement" is needed in the *Terrestrial Code*. It felt that it was important that all OIE Member Countries have the same understanding of this term in the application of OIE international standards. Members of the *ad hoc* Group differed on whether the birth and death of animals should be considered as an 'animal movement' for the purpose of the Guidelines. It proposed that the Terrestrial Code Commission consider whether there is a need for a definition.

The *ad hoc* Group proposed to revise the definition of "market" presented in Chapter 1.1.1. of the *Terrestrial Code* because the current definition seems to introduce conditions rather than to define the term. The proposed amendments to the definition of 'market' are presented at Appendix IV.

The *ad hoc* Group reviewed the work accomplished since its first meeting in June 2005 and noted that, according to the terms of reference, it had been successful in producing definitions and general principles and in preparing draft guidelines for identification and traceability of live animals.

The *ad hoc* Group noted that there is still outstanding work in regard to the provision of recommendations for a practical implementation by Member Countries of traceability systems. The *ad hoc* Group avoided providing detailed recommendations in light of the comment from Member Countries about prescriptive guidelines being best avoided. This point could be addressed by the provision of useful references (including for example internet addresses for Member Country traceability programmes). Alternatively, the *ad hoc* Group could develop specific recommendations based on the experiences of Member Countries in implementing animal identification systems to help achieving the objectives and desired outcomes.

If further work in this area is required, the *ad hoc* Group suggested actions to be taken, as follows:

- invite Member Countries to submit a summary of their national animal identification and traceability systems for review and reference of the OIE;

- the organisation by the OIE of an international conference on animal identification and traceability. This would facilitate the development of technical papers (perhaps an edition of the OIE *Scientific and Technical Review*) on this topic.

.../Appendices

Appendix L (contd)

Appendix I

MEETING OF THE OIE *AD HOC* GROUP ON IDENTIFICATION AND TRACEABILITY OF LIVE ANIMALS

Paris, 23–25 January 2007

List of participants

MEMBERS OF THE *AD HOC* GROUP

Dr Luis O. Barcos (Chair)
Representante Regional de la OIE para las Américas
Cerviño 3101, 2º piso
(1425) Buenos Aires
ARGENTINA
Tel.: (54) 11 4803-3688
Fax: (54) 11 4803-4877
E-mail: rr.americas@oie.int

Prof. Hassan Aidaros (absent)
Professor of Hygiene and Preventive Medicine
Faculty of Veterinary Medicine
Banha University
5 Mossadak Street
12311 Dokki - Cairo
EGYPT
Tel.: (2012) 218 5166
Fax: (202) 760 7055
E-mail: Haidaros@netscape.net

Dr Yamato Atagi
Ministry of Agriculture, Forestry and Fisheries
Deputy Director
Animal Health Division
Food Safety and Consumer Affairs Bureau
1-2-1 Kasumigaseki
Chiyoda-ku, Tokyo 100-8950
JAPAN
Tel.: (81) 3 3502 8295
Fax: (81) 3 3502 3385
E-mail: yamato_atagi@nm.maff.go.jp

Dr Tony Britt
Principal Scientist/Livestock Quality Assurance
Department of Primary Industries
P.O. Box 2500
Bendigo 3554
AUSTRALIA
E-mail: Tony.Britt@dpi.vic.gov.au

Dr Annamaria Bruno
Food Standards Officer
Food and Nutrition Division
Joint FAO/WHO Food Standards Programme
Vialle delle Terme di Caracalla
00100 Rome
ITALY
Tel.: (39) 06 570-56254
Fax: (39) 06 570-54593
E-mail: Annamaria.Bruno@fao.org

Dr Martine Dubuc
Directrice
Institut national de santé animale
200, chemin de Sainte-Foy
11ème étage
Québec G1R 4X6
CANADA
Tel.: +1 (418) 380-2100 poste 3121
Fax: +1(418) 380-2169
E-mail: martine.dubuc@mapaq.gouv.qc.ca

Dr Musa Fanikiso (absent)
Department of Animal Health and Production
Ministry of Agriculture
Private Bag 0032
Gaborone
BOTSWANA
Tel.: (267) 3950 635
Fax: (267) 318 1383
E-mail: mfanikiso@gov.bw

Appendix L (contd)

Appendix I (contd)

OIE HEADQUARTERS

Dr Bernard Vallat
Director General
OIE
Tel.: 33-(0)1 44 15 18 88
Fax: 33-(0)1 42 67 09 87
E-mail: oie@oie.int

Dr Sarah Kahn
Head
International Trade Department
OIE
Tel.: 33 (0)1 44 15 18.80
Fax: 33 (0)1 42 67 09.87
E-mail: s.kahn@oie.int

Dr Daniel Chaisemartin
Head
Administration and Management
Systems Department
OIE
Tel.: 33-(0)1 44 15 18 88
Fax: 33-(0)1 42 67 09 87
E-mail: d.chaisemartin@oie.int

Dr Willem Droppers
Chargé de mission
OIE
Tel.: 33 (0)1 44 15 18 88
Fax: 33 (0)1 42 67 09 87
E-mail: w.droppers@oie.int

Dr Francesco Berlingieri
Deputy Head
International Trade Department
OIE
Tel.: 33-(0)1 44 15 18 88
Fax: 33-(0)1 42 67 09 87
E-mail: f.berlingieri@oie.int

Appendix L (contd)

Appendix II

MEETING OF THE OIE *AD HOC* GROUP ON IDENTIFICATION AND TRACEABILITY OF LIVE ANIMALS

Paris, 23–25 January 2007

Adopted Agenda

1. Adoption of the agenda

2. Introduction

Report on the activities of the Terrestrial Animal Health Standards Commission and of the Animal Production Food Safety Working Group

3. Draft guidelines for the design and implementation of animal traceability

Comments from OIE Member Countries, the Terrestrial Animal Health Standards Commission and the Animal Production Food Safety Working Group

4. Conclusions

Appendix L (contd)

Appendix III

DRAFT GUIDELINES FOR THE DESIGN AND IMPLEMENTATION OF ANIMAL TRACEABILITY

Introduction and objectives

These guidelines are based on the general principles presented in Article 3.5.1.1. The Guidelines outline for Member Countries the basic elements that need to be taken into account in the design and implementation of an *animal identification system* to achieve *animal traceability*. Whatever *animal identification system* the country adopts, it should comply with relevant OIE standards. Each country should design a programme in accordance with the scope and relevant performance criteria to ensure that the desired *animal traceability* outcomes can be achieved.

Definitions

These following definitions apply for the purpose of this Appendix.

Desired outcomes: describe the overall goals of a programme and are usually expressed in qualitative terms, e.g. 'to ensure that animals and/or animal products are safe and suitable for use'. Safety and suitability for use could be defined in terms such as animal health, food safety and trade.

Performance criteria: are specifications for performance of a programme and are usually expressed in quantitative terms, such as 'all animals can be traced to the *establishment* of birth within 48 hours of an enquiry'.

Reporting: means advising the *Veterinary Administration* in accordance with the procedures listed in the programme.

Scope: specifies the targeted species, population and/or production/trade sector within a defined area (country, zone) or compartment that is the subject of the identification and traceability programme.

Transhumance: periodic/seasonal movements of *animals* between different pastures within or between countries.

Key elements of the *animal identification system*:

1. Desired outcomes

Desired outcomes should be defined through consultation between the *Veterinary Administration* and other parties, which should include (depending on scope) animal producers and food processors, private sector veterinarians, scientific research organisations and other government agencies. Desired outcomes may be defined in terms of:

a) animal health (e.g. disease surveillance and notification; detection and control of disease; vaccination programmes);

b) public health (e.g. surveillance and control of zoonotic diseases and food safety);

c) management of emergencies e.g. natural catastrophies or man-made events;

d) trade (support for inspection and certification activities of Veterinary Services).

2. Scope

Scope should also be defined through consultation between the *Veterinary Administration* and other parties, as discussed above. The scope of *animal identification systems* is often based on the definition of a species and sector, to take account of particular characteristics of the farming systems e.g. pigs in pork export production; cattle within a defined FMD free zone. Different systems will be appropriate according to the production systems used in countries and the nature of their industries and trade.

Appendix L (contd)

Appendix III (contd)

3. Performance criteria

Performance criteria are also designed in consultation with other parties, as discussed above. The performance criteria depend on the desired outcomes and scope of the programme. They are usually described in quantitative terms. For example, some countries consider it necessary to trace susceptible animals within 24-48 hours when dealing with highly contagious diseases such as FMD and avian influenza. For food safety, animal tracing to support investigation of incidents may also be urgent. For chronic animal diseases such as bovine paratuberculosis , it may be considered appropriate that animals can be traced within 30 days.

4. Preliminary studies

In designing *animal identification systems* it is useful to conduct preliminary studies, which should take into account:

a) animal populations, species, distribution and herd management;

b) farming and industry structures, production and location;

c) animal health;

d) public health;

e) trade issues ;

f) zoning and compartmentalisation;

g) animal movement patterns (including transhumance);

h) information management and communication;

i) availability of resources (human and financial);

j) social and cultural aspects;

k) stakeholder knowledge of the issues and expectations;

l) gaps between current enabling legislation and what is needed at long term;

m) international experience;

n) national experience;

o) available technology options.

Pilot projects may form part of the preliminary study to test the *animal identification system* and *animal traceability* and to gather information for the design and the implementation of the programme.

Economic analysis may consider costs, benefits, funding mechanisms and sustainability.

5. Design of the programme

a) General provisions

The programme should be designed in consultation with the stakeholders to facilitate the implementation of the *animal identification system* and *animal traceability*. It should take into account the scope, performance criteria and desired outcomes as well as the results of any preliminary study.

All the specified documentation should be standardised as to format, content and context.

To protect and enhance the integrity of the system, procedures should be incorporated into the design of the programme to prevent, detect and correct errors e.g. use of algorithms to prevent duplication of identification numbers in an electronic database.

b) Means of animal identification

The choice of a physical animal identifier should take into account elements such as the durability, human resources, species and age of the animals to be identified, required period of identification, cultural aspects, technology compatibility and relevant standards, farming practices, animal population, climatic conditions, resistance to tampering, trade considerations, cost, and retention and readability of the identification method.

The *Veterinary Administration* is responsible for approving the materials and equipment chosen, to ensure that these means of animal identification comply with technical and field performance specifications, and for the supervision of their distribution. The *Veterinary Administration* is also responsible for ensuring that identifiers are unique and are used in accordance with the requirements of the *animal identification system*.

The *Veterinary Administration* should establish procedures for *animal identification* and *animal traceability* including:

i) the time period within which an animal born on an *establishment* should be identified;

ii) animals imported into an *establishment*;

iii) when an animal loses its identification or the identifier becomes unusable;

iv) arrangements for the destruction and/or reuse of identifiers.

Where group identification without a physical identifier is adequate, documentation should be created specifying at least the number of animals in the group, the species, the date of identification, the person legally responsible for the animals and/or establishment. This documentation constitutes a unique group identifier.

Where all animals in the group are physically identified with a group identifier, documentation should also specify the unique group identifier.

c) Registration

Procedures need to be incorporated into the design of the programme in order to ensure that relevant events and information are registered in a timely and accurate manner.

Depending on the scope, performance criteria and desired outcomes, records as described below should specify, at least, the species, the unique animal or group identifier, the date of the event, the identifier of the *establishment* where the event took place, and the code for the event itself.

i) Establishments/owners

Establishments where animals are kept should be identified and registered, including at least their physical location (such as geographical coordinates or street address), the type of *establishment* and the species kept. The register should include the name of the person legally responsible for the animals at the *establishment*.

The types of establishments that may need to be registered include holdings (farms), assembly centres (e.g. agriculture shows and fairs, sporting events, transit centres, breeding centres), *markets*, *abattoirs*, rendering plants, dead stock collection points, transhumance areas, centres for necropsy and diagnosis, research centres, zoos, *border posts*, *quarantine stations*.

Appendix L (contd)

Appendix III (contd)

In cases where the registration of establishments is not applicable e.g. some transhumance systems, the animal owner, the owner's place of residence and the species kept should be recorded.

ii) Animals

Animal identification and species should be registered for each *establishment*/owner. Other relevant information about the animals at each establishment/owner may also be recorded e.g. date of birth, production category, sex, breed, *animal identification* of the parents.

iii) Movements

The *registration* of animal movements is necessary to achieve *animal traceability*. When an animal is introduced into or leaves an *establishment*, these events constitute a movement.

Some countries classify birth, *slaughter* and *death* of the animal as movements.

The information registered should include the date of the movement, the *establishment* from which the animal or group of animals was dispatched, the number of animals moved, the destination *establishment*, and any in transit *establishment*.

When establishments are not registered as part of the *animal identification system*, ownership and location changes constitute a movement record. Movement recording may also include means of *transport* and the *vehicle* identifier.

Procedures should be in place to maintain *animal traceability* during *transport* and when animals arrive and leave an *establishment*.

iv) Events other than movements

The following events may also be *registered*:

- birth, *slaughter* and *death* of the animal (when not classified as a movement);
- attachment of the unique identifier to an animal;
- change of ownership regardless of change of *establishment*;
- observation of an animal on an *establishment* (testing, health investigation, health certification, etc.);
- animal imported: a record of the *animal identification* from the exporting country should be kept and linked with the *animal identification* assigned in the importing country;
- animal exported: a record of the *animal identification* from the exporting country should be provided to the Veterinary Administration in the importing country;
- animal identifier lost or replaced;
- animal missing (lost, stolen, etc.);
- animal identifier retired (at slaughter, following loss of the identifier or death of the animal on a farm, at diagnostic laboratories, etc.).

d) Documentation

Documentation requirements should be clearly defined and standardised, according to the scope, performance criteria and desired outcomes and supported by the legal framework.

e) Reporting

Depending on the scope, performance criteria and desired outcomes, relevant information (such as *animal* identification, movement, events, changes in numbers of livestock, *establishments*) should be reported to the *Veterinary Administration* by the person responsible for the animals.

f) Information system

An information system should be designed according to the scope, performance criteria and desired outcomes. This may be paper based or electronic. The system should provide for the collection, compilation, storage and retrieval of information on matters relevant to *registration*. The following considerations are important:

- Have the potential for linkage to traceability in the other parts of the food chain;
- Minimise duplication;
- Relevant components, including databases, should be compatible;
- Confidentiality of data.

The *Veterinary Administration* should have access to this information system as appropriate to meet the scope, performance criteria and desired outcomes.

g) Laboratories

The results of diagnostic tests should record the animal identifier or the group identifier and the establishment where the sample was collected.

h) Abattoirs, rendering plants, dead stock collection points, markets, assembly centres

Abattoirs, rendering plants, dead stock collection points, *markets* and assembly centres should document arrangements for the maintenance of *animal identification* and *animal traceability* in compliance with the legal framework.

These *establishments* are critical points for control of animal health and food safety.

Animal identification should be recorded on documents accompanying samples collected for analysis.

The components of the *animal identification system* operating within *abattoirs* should complement and be compatible with arrangements for tracking animal products throughout the food chain. At an *abattoir*, *animal identification* should be maintained during the processing of the animal's carcass until the carcass is deemed fit for human consumption.

The *animal identification* and the *establishment* from which the animal was dispatched should be registered by the *abattoir*, rendering plant and dead stock collection points.

Abattoirs, rendering plants and dead stock collection points should ensure that identifiers are collected and disposed of according to the procedures established and regulated within the legal framework. These procedures should minimize the risk of unauthorized reuse and, if appropriate, should establish arrangements for the reuse of identifiers.

Reporting of movement by *abattoirs*, rendering plants and dead stock collection points should occur according to the scope, performance criteria and desired outcomes and the legal framework.

Appendix L (contd)

Appendix III (contd)

i) Penalties

Different levels and types of penalties should be defined in the programme and supported by the legal framework.

6. Legal framework

The *Veterinary Administration*, with other relevant governmental agencies and in consultation with stakeholders, should establish a legal framework for the implementation and enforcement of *animal identification system* and *animal traceability* in the country. The structure of this framework will vary from country to country.

Animal identification, *animal traceability* and animal movement should be under the responsibility of the *Veterinary Administration*.

This legal framework should address:

a) desired outcomes and scope;

b) obligations of the *Veterinary Administration* and other parties;

c) organisational arrangements, including the choice of technologies and methods used for the *animal identification system* and *animal traceability*;

d) management of animal movement;

e) confidentiality of data;

f) data access / accessibility;

g) checking, verification, inspection and penalties;

h) where relevant, funding mechanisms;

i) where relevant, arrangements to support a pilot project.

7. Implementation

a) Action plan

For implementing the *animal identification system*, an action plan should be prepared specifying the timetable and including the milestones and performance indicators, the human and financial resources, and checking, enforcement and verification arrangements.

The following activities should be addressed in the action plan:

i) Communication

The scope, performance criteria, desired outcomes, responsibilities, movement and registration requirements and sanctions need to be communicated to all parties. Communication strategies need to be targeted to the audience, taking into account elements such as the level of literacy (including technology literacy) and spoken languages.

ii) Training programmes

It is desirable to implement training programmes to assist the *Veterinary Services* and other parties.

iii) Technical support

Technical support should be provided to address practical problems.

b) Checking and verification

Checking activities should start at the beginning of the implementation to detect, prevent and correct errors and to provide feedback on programme design.

Verification should begin after a preliminary period as determined by the *Veterinary Administration* in order to determine compliance with the legal framework and operational requirements.

c) Auditing

Auditing should be carried out under the authority of the *Veterinary Administration* to detect any problems with the *animal identification system* and *animal traceability* and to identify possible improvements.

d) Review

The programme should be subject to periodic review, taking into account the results of checking, verification and auditing activities.

Appendix L (contd)

Appendix IV

CHAPTER 1.1.1.

GENERAL DEFINITIONS

. . .

Market

means a ~~market~~ place where *animals* from different *establishments* assemble and are traded. ~~which is~~:

~~a)~~ ~~placed under the control of an *Official Veterinarian*;~~

~~b)~~ ~~not located in an *infected zone*;~~

~~c)~~ ~~used only for *animals for breeding or rearing* or *animals for slaughter* which conform with the conditions provided in the *Terrestrial Code*;~~

~~d)~~ ~~disinfected before and after use.~~

. . .

- - - - - - - - - - - - - - -

~~—~~ text deleted

Appendix LI

Original: English
February 2007

REPORT OF THE MEETING OF THE OIE *AD HOC* GROUP ON SALMONELLOSIS

Paris, 20-22 February 2007

The OIE *ad hoc* Group on Salmonellosis (hereinafter referred to as the *ad hoc* Group) met at the OIE Headquarters from 20 to 22 February 2007.

The members of the *ad hoc* Group and other participants are listed at Appendix I, apologies were received from Dr Willeberg. The Agenda adopted is given at Appendix II.

Dr Vallat, Director General of the OIE, welcomed all members and indicated that on request of OIE Member Countries the OIE intends to develop guidelines to address animal and public health aspects of Salmonellosis in poultry. He recalled that animal production food safety was identified as a high priority area in the 2001-2005 OIE Strategic Plan. Member Countries of the OIE considered that the organisation should be more active in issues of public health and consumer protection and that this should include more involvement in the area of diseases or pathogens transmissible through food, whether or not animals are affected by such diseases or pathogens. A permanent Working Group on Animal Production Food Safety (the Working Group) was established in 2002 to coordinate the OIE's activities in food safety. The Working Group was requested to focus on food safety measures applicable at farm level and to monitor the ongoing cooperation between the OIE and Codex Alimentarius. Furthermore the Working Group has to advise the Director General on animal production food safety issues related to the OIE. He explained how the OIE is working in collaboration with the Codex Alimentarius Commission (CAC) to develop standards that allow addressing the hazards present in the food chain continuum. The OIE is concentrating its efforts on hazards at the farm level. Food borne diseases, e.g. cysticercosis and salmonellosis, are a priority. The Working Group decided to start with *Salmonella* Enteritidis and *S. Typhimurium* in laying hens. The OIE *Terrestrial Animal Health Code* (hereinafter referred to as the the *Terrestrial Code*) already contains standards to prevent the import of salmonellosis when trading in animals and products (hatching eggs). The OIE would like to assist Member Countries decrease the load of *S. Enteritidis* and *S. Typhimurium* on farm by providing guidance on detection, surveillance and control. The Director General stressed the need for an appropriate balance between needs and circumstances of developing/in-transition and developed countries in the Guidelines.

Dr Sarah Kahn, head of the OIE International Trade Department, thanked the Director General for his welcoming words and underlined the importance of this work. She presented the terms of reference proposed by the Working Group and revised by the OIE Terrestrial Animal Health Standards Commission (hereinafter referred to as the Terrestrial Code Commission) in its October 2006 meeting (see Appendix III). Dr Kahn noted that, for Member Countries it will be useful to have access to a practical guideline for the control of salmonellosis in poultry producing eggs for human consumption. She advised that the work of this group will be reviewed by the Working Group and by the Terrestrial Code Commission. Eventually, it will be considered by the International Committee meeting at the General Session for inclusion in the Terrestrial Code as a new international standard. Dr Kahn explained that the *ad hoc* Group members were chosen as independent experts and not as country representatives and that they should not distribute the working papers or the report of the meeting. She thanked the Chair for his willingness to guide this work and noted that future work will possibly address salmonellosis and camplylobacteriosis in broiler flocks.

Appendix LI (contd)

Dr Sanchez, Director of Trasga, then took over as Chair of the meeting, introduced the members of the *ad hoc* Group and he presented the draft agenda. He reminded members of the need to consider the work already done by other international organisations (notably the CAC).

The *ad hoc* Group agreed on a structure and title for an OIE "Guideline on the detection, control and prevention of *Salmonella Enteritidis* and *S. Typhimurium* in poultry producing eggs for human consumption" (see Appendix IV). The outcome will be relevant to breeding flocks.

In drafting this guideline, the *ad hoc* Group considered several publications and other source materials, which are listed at Appendix V.

The *ad hoc* Group considered Chapter 2.10.3. (salmonellosis) of the OIE *Manual of Diagnostic Tests and Vaccines for Terrestrial Animals* particularly the indications on bacteriological and serological diagnostic techniques. The *ad hoc* Group suggested this Chapter be updated by the OIE Biological Standards Commission, notably on the following topics:

1. how to perform commonly used techniques (i.e. drag and boot swabs and faecal sampling) including pooling of samples and any recommendations in regard to confirmatory testing ie. if there are concerns about basing regulatory decisions on the results of screening tests (e.g. environmental sampling);

2. recommendations on the use of PCR;

3. techniques to differentiate field and vaccine strains of *S. Enteritidis* and *S. Typhimurium*, given the increasing use of vaccines in poultry laying eggs for human consumption.

The *ad hoc* Group considered the sampling methods and noted that although sampling fresh faeces themselves likely provides the most sensitive test for the shedding of *Salmonellae*, sampling litter can sometimes provide a comparable level of detection.

The *ad hoc* Group proposed a definition for "culling" to be used in the Guideline. Members felt that it was necessary to clarify that depopulation or culling of a flock found to be infected with *S. Enteritidis* and *S. Typhimurium* may be a requirement of animal health or public health regulatory policies or it may be a decision taken by farmers based on commercial considerations.

The *ad hoc* Group was of the view that Veterinary Services should be notified of *S. Enteritidis* and *S. Typhimurium* findings in poultry breeding flocks and flocks laying eggs for human consumption and that these findings should be shared with the Competent Authority for public health if the Veterinary Services are not responsible for this function. While the Terrestrial Code provides guidance on 'Monitoring of poultry breeding flocks and hatcheries for salmonella' (Appendix 3.4.1) and recommendations on preventing the spread of these pathogens via international trade in breeding birds and hatching eggs (Chapter 2.10.2), *S. Enteritidis* and *S. Typhimurium* are not OIE listed diseases. Given the variable approaches to surveillance and control of salmonellosis in member countries, the *ad hoc* Group proposed that for countries attempting to control or eradicate *S. Enteritidis* and *S. Typhimurium* in poultry, notification to the Veterinary Services is essential. This text is presented in square brackets for consideration by the Working Group.

The *ad hoc* Group decided to seek advice from the Working Group and the Terrestrial Code Commission on how to present the Guideline within the Terrestrial Code. One option is to consolidate all relevant information on *S. Enteritidis* and *S. Typhimurium*, ie. to combine relevant parts of Chapter 2.10.2, Appendix 3.4.1. and the new Guideline. Alternatively, the OIE could develop a horizontal chapter on the poultry industry that addresses production diseases of human health significance (i.e. salmonellosis and camplylobacteriosis) with separate sections on the management of laying poultry, broilers, breeding poultry and hatcheries. As the available control and management techniques tend to be based on the sector rather than the particular pathogen, this may be the better approach.

…./Appendices

Appendix LI (contd)

Appendix I

MEETING OF THE OIE *AD HOC* GROUP ON SALMONELLOSIS

Paris, 20 - 22 February 2007

_____

List of participants

MEMBERS OF THE *AD HOC* GROUP

Dr Ignacio Sánchez Esteban (Chair)
Trasga
Sede Social Maldonado, 58
28006 Madrid
SPAIN
E-mail: isanchez@tragsa.es
Tel.: (34) 913 963 400
Fax: (34) 913 963 488

Dr William Amanfu
Animal Health Officer
Animal Production and Health Division
FAO
Via delle Terme di Caracalla
00153 Rome
ITALY
E-mail: william.amanfu@fao.org
Tel.: (39) 06 5705 6493
Fax: (39) 06 5705 3023

Prof Angelo Berchieri
Universidade Estadual Paulista Júlio de Mesquita
Faculdade de Ciências Agrárias e Veterinárias de Jaboticabal
Via de Acesso Paulo Donato Castellane, s/n
14884-900 - Jaboticabal, SP
BRAZIL
E-mail: angelo.berchieri@gmail.com
Tel.: (16) 3209 2663

Dr Elyakum Michael Berman
Ministry of Agriculture and Rural Development
Director, Labotatory of Poultry Disease
Haderara Poultry Disease Laboratory
35 Shimoni Street, Hadera 38364
ISRAEL
E-mail: ofot-hadera@moag.gov.il
Tel.: (972) 4630 3431
Fax: (972) 4630 3436

Dr Thongchai Chalermchaikit
Associate-Professor at Department of Microbiology
Faculty of Veterinary Science,
Chulalongkorn University
Henri-Dunant Rd., Bangkok 10330
THAILAND
E-mail: thongchai.c@chula.ac.th
Tel.: (662) 218 9586
(662) 218 9671
Fax: (662) 218 9587

Dr Daranai Viboolpong
Senior Department Manager of Laboratory
Betagro Science Center
136 Moo 9, Klong 1, Klong Luang
Pathumthani 12120
THAILAND
E-mail: daranai@betagro.com
Tel.: (662) 564 7932-40
Fax: (662) 564 7941

Prof Jaap A. Wagenaar
Dept Infectious Diseases and Immunology,
Faculty of Veterinary Medicine, Utrecht University,
PO Box 80.165,
3508 TD Utrecht
THE NETHERLANDS.
E-mail: j.a.wagenaar@vet.uu.nl
Tel.: (31) 320 23 81 57
Fax: (31) 320 23 89 61

Appendix LI (contd)

Appendix I (cont.)

OTHER PARTICIPANTS

Dr Preben Willeberg
(Invited but absent)
Danish Veterinary and Food Administration
Chief Veterinary Officer
Ministry of Food, Agriculture and Fisheries
Morkhoj Bygade 19
DK-2860 Soborg
DENMARK
E-mail: pw@fvst.dk
Tel.: (45) 33 95 60 00
Fax: (45) 39 67 52 48

OIE HEADQUARTERS

Dr Bernard Vallat
Director General
12, rue de Prony
75017, Paris
FRANCE
Tel.: 33 - (0)1 44 15 1888
Fax: 33 - (0)1 42 67 0987
E-mail: oie@oie.int

Dr Sarah Kahn
Head
International Trade Department
OIE
Tel.: 33 (0)1 44 15 1888
Fax: 33 (0)1 42 67 0987
E-mail: s.kahn@oie.int

Dr Willem Droppers
Chargé de mission
OIE
Tel.: 33 (0)1 44 15 1888
Fax: 33 (0)1 42 67 0987
E-mail: w.droppers@oie.int

Dr Francesco Berlingieri
Deputy Head
International Trade Department
OIE
Tel.: 33 (0)1 44 15 1888
Fax: 33 (0)1 42 67 0987
E-mail: f.berlingieri@oie.int

Dr Christianne Bruschke
Chargée de mission
Scientific and Technical Department
OIE
Tel.: 33 (0)1 44 15 1888
Fax: 33 (0)1 42 67 0987
E-mail: c.bruschke@oie.int

Appendix LI (contd)

Appendix II

MEETING OF THE OIE AD HOC GROUP ON SALMONELLOSIS

Paris, 20 - 22 February 2007

———

Adopted Agenda

1. Adoption of the agenda

2. Introduction

   Report on the activities of the OIE Terrestrial Animal Health Standards Commission and of the Animal Production Food Safety Working Group

3. Review of published scientific information

4. Draft guideline for the OIE *Terrestrial Animal Health Code* on farm methods for the detection, control and prevention of *Salmonella typhimurium* and *S. Enteritidis* in laying hens

5. Other business

Appendix LI (contd)

Appendix III

TERMS OF REFERENCE FOR THE OIE *AD HOC* GROUP ON SALMONELLOSIS

1. Using up to date scientific information, draft a Chapter for the OIE *Terrestrial Animal Health Code* that addresses on farm methods for the detection, control and prevention of *Salmonella typhimurium* and *S. Enteritidis* in laying hens.

2. Take into account risk assessments carried out by JEMRA (Joint FAO/WHO Meetings on Microbial Risk Assessment) and other expert groups.

3. Take into account standards developed and under development by relevant international organisations, in particular the CAC, seeking complementarity.

4. Provide scientific justification and risk basis for all recommendations.

Appendix LI (contd)

Appendix IV

GUIDELINE ON THE DETECTION, CONTROL AND PREVENTION OF *SALMONELLA ENTERITIDIS* AND *S.* TYPHIMURIUM IN POULTRY PRODUCING EGGS FOR HUMAN CONSUMPTION

Introduction

The aim of the *Terrestrial Animal Health Code* (the *Terrestrial Code*) is to assist Member Countries in the management and control of significant animal diseases, including diseases with zoonotic potential, and in developing animal health measures applicable to trade in terrestrial animals and their products. This guideline provides recommendations on the detection, control and prevention of *Salmonella Enteritidis* and *S. typhimurium* in poultry producing eggs for human consumption.

S. Enteritidis and *S. Typhimurium* belong to the species of *S. enterica*. In most food *animal* species, *S. Enteritidis* and *S. Typhimurium* can establish a clinically inapparent *infection* of variable duration, which is significant as a potential *zoonosis*. Such *animals* may be important in relation to the spread of *infection* between flocks and as causes of human food poisoning. In the latter case, this can occur when these *animals* enter the food chain thus producing contaminated food products.

Salmonellosis is one of the most common food-borne bacterial diseases in the world. It is estimated that over 90% of *Salmonella* infections in humans are food-borne with *S. Enteritidis* and *S. Typhimurium* accounting for major part of the problem. Egg-associated salmonellosis, particularly *S. Enteritidis*, is an important public health problem.

Purpose and scope

This guideline deals with methods for on farm detection, control and prevention of *S.* enteritidis and *S. Typhimurium* in poultry producing eggs for human consumption. This guideline complements the Codex Alimentarius draft code of hygienic practice for eggs and egg products (ALINORM 07/28/13, appendix II). It covers the preharvest part of the production chain from elite flock to the commercial layer farm. The objective is to control *Salmonella* in poultry with the goal of producing *Salmonella* free eggs.

The scope covers chickens and other domesticated birds used for the production of eggs for human consumption. The recommendations presented in this guideline are also relevant to the control of other *Salmonella* serotypes.

Definitions (for this chapter only)

Peak of lay

Means the time in the laying cycle (normally expressed as age in weeks) when the production of the flock is highest.

Pullet flock

Means a flock of poultry prior to the period of laying eggs for human consumption.

Layer flock

Means a flock of poultry during the period of laying eggs for human consumption.

Competitive exclusion

Means the administration of bacterial flora to poultry to prevent gut colonisation by enteropathogens, including *Salmonellae*.

Appendix LI (contd)

Appendix IV (contd)

Culling

Means the depopulation of a flock before the end of its normal production period.

Hazards in poultry breeding flocks, hatcheries and poultry producing eggs for human consumption

All measures to be implemented in breeding flocks and hatcheries are described in the *Terrestrial Code* Chapters 2.10.2. on *S. Enteritidis* and *S. Typhimurium* in Poultry and Chapter 3.4.1. on Hygiene and Disease Security Procedures in Poultry Breeding Flocks and Hatcheries.

This guideline deals with poultry producing eggs for human consumption. The rest of the food chain is addressed by the Codex Alimentarius draft code of hygienic practice for eggs and egg products.

Recommendations applicable to pullet and layer flocks

1. The *establishment* should be surrounded by a security fence and a gateway to control traffic and access to the site. The choice of a suitably isolated geographical location, taking into account the direction of the prevailing winds, facilitates hygiene and *disease* control. A sign indicating restricted entry should be posted at the entrance.

2. *Establishments* should operate on an 'all in - all out' single age group whenever possible.

3. Where several flocks are maintained on one *establishment*, the flocks should be managed as separate entities.

4. Poultry houses and buildings used to store feed or eggs should be pest proof (especially rodents) and not accessible to wild birds.

5. Poultry houses should be constructed so that cleaning and *disinfection* can be carried out adequately and preferably of smo oth impervious materials.

6. *Establishments* should be free from unwanted vegetation and debris. The area immediately surrounding the poultry houses ideally should consist of concrete or other material to facilitate cleaning. An exception to this would be trees for heat control, with the exception of fruit trees which could attract birds.

7. Domestic *animals*, other than poultry, should not be permitted access to poultry houses and buildings used to store feed or eggs.

8. Clean coveralls or overalls, hats and footwear should be provided for all personnel and visitors entering the poultry house[7]. A disinfectant foot-bath[8] should be provided and the disinfectant solution should be changed regularly as recommended by the manufacturer. Personnel and visitors should wash their hands with soap and water or in disinfectant solution before and after entering the layer house.

9. When a poultry house is depopulated, all faeces and litter should be removed from the house and disposed of in a manner approved by the *Veterinary Services* or other *Competent Authority*. After removal of faeces and litter, cleaning and *disinfection* of the building and equipment should be applied in accordance with Appendix 3.6.1.

[7] Add for breeding flocks

[8] Add for breeding flocks

Bacteriological monitoring of the efficacy of *disinfection* procedures is recommended when *S.* Enteritidis and/or *S. Typhimurium* have been detected in the flock. Routine pest control procedures should also be carried out at this time.

10. Birds used to stock a pullet house should be obtained from breeding flocks that are free from *S. Enteritidis* and *S. Typhimurium* and have been monitored according to Article 3.4.1.9.

11. *Layer flocks* should be stocked from *pullet flocks* that are free from *S.* Enteritidis and *S. Typhimurium* and have been monitored according to this guideline.

12. While *S.* Enteritidis and *S. Typhimurium* are not normally found as a contaminant in feed, it is nonetheless recommended to monitor the *Salmonella* status of feed used in poultry houses. The use of pelletised feeds or feeds subjected to other treatment is recommended. Feed should be stored in clean closed containers to prevent access by birds and pests. Spilled feed should be cleaned up regularly to remove attractants for wild birds and pests.

13. The water supply to poultry houses should be potable and microbiological quality should be monitored if there is any reason to suspect contamination.

14. Sick and dead birds should be removed from poultry houses as soon as possible and effective and safe disposal procedures implemented.

15. Records of flock history and performance, *surveillance*, treatment and *vaccinations* in regard to *Salmonella* should be maintained on an individual flock basis within the *establishment*. Such records should be readily available for inspection by a *veterinarian*.

16. There should be good communication and interaction between all involved in the food chain so that control can be maintained from breeding to egg production and consumption. Farmers should have access to basic training on hygiene and biosecurity measures relevant to egg production and food safety.

17. For poultry flocks that are allowed to range outdoors, the following provisions apply:

    Attractants to wild birds should be minimised (eg commercial feed and watering points should be kept inside the poultry house if possible). Poultry should not be allowed access to sources of contamination (eg household rubbish; other farm *animals*; surface water; manure storage areas). The nesting area should be inside the poultry house.

Recommendations applicable to egg hygiene and collection

1. Cages should be maintained in good condition and kept clean. The litter in the poultry house should be kept dry and in good condition. The nest box litter should be kept clean and an adequate quantity maintained.

2. Eggs should be collected at frequent intervals, not less than twice per day, and placed in new or clean and disinfected trays.

3. Dirty, broken, cracked, leaking or dented eggs should be collected separately and should not be used as table eggs.

4. Eggs should be stored in a cool and dry room used only for this purpose. Storage conditions should minimise the potential for microbial contamination and growth. The room should be kept clean and regularly sanitised.

Appendix LI (contd)

Appendix IV (contd)

5. Records of egg production should be kept to assist traceability and veterinary investigations.

6. If eggs are cleaned on the farm, this should be done in accordance with the requirements of the *Competent Authority*.

Surveillance of pullet and layer *flocks* for *S. Enteritidis* and *S. Typhimurium*

Surveillance should be performed to identify infected flocks in order to take measures that will reduce transmission of *S. Enteritidis* and *S. Typhimurium* to humans and to reduce the *prevalence* in poultry. Microbiological testing is preferred to serological testing because of its higher sensitivity and specificity. In the framework of regulatory programmes for the control of *S. Enteritidis* and *S. Typhimurium*, confirmatory testing may be appropriate to ensure that decisions are soundly based.

Sampling

a) Time and frequency of testing

   i) Pullet flock testing

      – Four weeks before being moved to another house, or before going into production if the *animals* will remain in the same house for the production period.

      – At the end of the first week of life when the status of breeding farm and hatchery is not known or does not comply with Chapter 2.10.2.

      – One or more additional times during the growing period if there is a culling policy in place. The frequency would be determined on commercial considerations.

   ii) Layer flock testing

      – At expected *peak of lay* for each production cycle.

      – One or more additional times if there is a culling policy in place or if eggs are diverted to processing for the inactivation of the pathogen. The minimal frequency would be determined by the *Veterinary Services*.

   iii) Empty building testing

      Environmental sampling of the empty building after depopulation, cleaning and *disinfection*, following a *S. Enteritidis* and/or *S. Typhimurium* positive flock.

b) Available methods for sampling

   Drag swabs: Sampling is done by dragging swabs around the poultry building.

   Boot swabs: Sampling is done by walking around the poultry building with absorbent material placed over the footwear of the sampler.

   Faecal samples: Multiple samples of fresh faeces collected from different areas in the poultry building.

c) Number of samples to be taken according to the chosen method

Recommendation is 5 pair of boot swabs or 10 drag swabs. These swabs may be pooled into no less than 2 samples.

The total number of faecal samples to be taken on each occasion is shown in Table I and is based on the random statistical sample required to give a probability of 95% to detect one positive sample given that *infection* is present in the population at a level of 5% or greater.

Table I

Number of birds in the flock	Number of samples to be taken on each occasion
25-29	20
30-39	25
40-49	30
50-59	35
60-89	40
90-199	50
200-499	55
500 or more	60

d) Laboratory methods

Refer to the OIE *Manual of Diagnostic Tests and Vaccines for Terrestrial Animals* (the *Terrestrial Manual*).

Control measures

Salmonella control can be achieved by adopting the management practices mentioned above in combination with the following measures. No single measure used alone will achieve effective *S*. Enteritidis and *S*. *Typhimurium* control.

Currently available control measures are: *vaccination, competitive exclusion*, flock *culling* and product diversion to processing.

Antimicrobials are not recommended to control *S*. Enteritidis and *S*. *Typhimurium* in poultry producing eggs for human consumption because the effectiveness of the therapy is limited; it has the potential to produce residues in the eggs and can contribute to the development of antimicrobial resistance[9].

1. Vaccination

Many inactivated vaccines are used against *Salmonella* infection caused by different serovars in various poultry species, including a single or combined vaccine against *S*. enteritidis and *S*. *Typhimurium.*

Live vaccines are also used in a number of countries to prevent *Salmonella infections* in poultry. It is important that field and vaccine strains can easily be differentiated in the *laboratory*. Vaccines produced according to the *Terrestrial Manual* should be used.

9 antimicrobial and competitive exclusion / live vaccines use in elite flocks

Appendix LI (contd)

Appendix IV (contd)

Vaccination can be used as part of an overall *Salmonella* control programme. *Vaccination* should never be used as the sole control measure.

When the status of breeding farm and hatchery from which the *pullet flock* originates is not known or does not comply with Chapter 2.10.2., *vaccination* of *pullet flocks*, starting with day-old chicks against *S*. Enteritidis or *S*. Enteritidis/*S*. *Typhimurium* should be considered.

Vaccination should be considered when moving day-old chicks to a previously contaminated shed, so as to minimize the risk of the birds contracting infection with *S*. Enteritidis and *S*. *Typhimurium*.

When used, *vaccination* should be performed according to the instructions provided by the manufacturer and in accordance with the directions of the *Veterinary Services*.

2. Competitive exclusion

Competitive exclusion can be used in day-old chicks to prevent colonisation by *S*. Enteritidis and *S*. *Typhimurium*.

3. Culling

Depending on animal health and public health policies, culling is an option to manage infected flocks. If poultry are not culled, eggs should be sent for processing for inactivation of pathogens. Infected flocks should be destroyed or *slaughtered* and processed in a manner that minimises human exposure to pathogens.

Before restocking, the poultry house should be cleaned, disinfected and tested to verify that the cleaning has been effective (see above).

Farmers should be educated on how to handle *Salmonella* infected flocks in order to prevent spread to adjacent farms and human exposure.

Prevention of *Salmonella* spread

When a *layer flock* or *pullet flock* is found infected with *S*. Enteritidis and/or *S*. *Typhimurium* management procedures should be implemented.

In addition to the general control measures described previously management procedures should be adjusted to effectively isolate the infected flock from other flocks on the farm, adjacent farms and from other farms under common management.

1. Personnel should observe standard *disease* control procedures (e.g. handle infected flock separately/last in sequence; use of dedicated personnel and equipment if possible).

2. Pest control measures should be observed stringently

3. Epidemiological investigations should be carried out to determine the origin of new infections as appropriate to the epidemiological situation.

4. Movement of culled poultry or layers at the end of the production cycle should only be allowed for *slaughter* or destruction.

5. Poultry litter/faeces and other potentially contaminated farm waste should be disposed of in a safe manner to prevent the spread of *infections* with *S*. enteritidis and *S*. *Typhimurium* Particular care needs to be taken in regard to poultry litter/faeces used to fertilise plants intended for human consumption.

Appendix LI (contd)

Appendix IV (contd)

6. After depopulation of an infected flock the poultry house should be thoroughly cleaned and disinfected, with special attention to feed equipment and water systems.

7. Before restocking bacteriological examination should be carried out, if possible, to verify that the cleaning has been effective.

_____

REFERENCES

1. General definitions, OIE *Terrestrial Animal Health Code*, Chapter 1.1.1.

2. *Salmonella Enteritidis* and *Salmonella Typhimurium* in poultry, OIE *Terrestrial Animal Health Code*, Chapter 2.10.2.

3. Hygiene and disease security procedures in poultry breeding flocks and hatcheries, OIE *Terrestrial Animal Health Code*, Chapter 3.4.1.

4. General guidelines for animal health surveillance, OIE *Terrestrial Animal Health Code*, Appendix 3.8.1.

5. Salmonellosis, OIE *Manual of Diagnostic Tests and Vaccines for Terrestrial Animals*, Chapter 2.10.3.

6. *Salmonella* contamination: a significant challenge to the global marketing of animal food products, L. Plym Forshell & M. Wierup, OIE Sc*ientific and Technical Rev*iew, Volume 25 (2), August 2006.

7. Codex Committee on Food Hygiene 38th Session, Houston, United States of America, 4 - 9 December 2006. Draft Code of Hygienic Practice for Eggs and Egg Products, ALINORM 07/28/13, Appendix II.

8. Microbiological Risk Assessment Series, No. 1, Risk assessments of *Salmonella* in eggs and broiler chickens, Interpretive Summary, FAO/WHO, 2002.

9. Microbiological Risk Assessment Series, No. 2, Risk assessments of *Salmonella* in eggs and broiler chickens, Technical Report, FAO/WHO, 2002.

10. Microbiological Risk Assessment Series, No. 3, Hazard characterization for pathogens in food and water, Guidelines, FAO/WHO, 2003.

11. The Use of Microbiological Risk Assessment Outputs to Develop Practical Risk Management Strategies: Metrics to improve food safety, Report of Joint FAO/WHO Expert meeting, Kiel, Germany, 3-7 April 2006.

12. Commission Regulation (EC) No 1003/2005 of 30 June 2005 implementing Regulation (EC) No 2160/2003 as regards a Community target for the reduction of the prevalence of certain *Salmonella* serotypes in breeding flocks of *Gallus gallus* and amending Regulation (EC) No 2160/2003 (Text with EEA relevance) (OJ L 170, 1.7.2005, p. 12).

13. Trends and sources of zoonoses, zoonotic agents and antimicrobial resistance in the European Union in 2004, European Food Safety Authority, February 2006.

14. Gast R.K. (2003). Salmonella infections. *In:* Diseases of Poultry, Saif Y.M *et al*., Iowa State Press, 2003, 567–568.

15. D. J. Caldwell, B. M. Hargis, D. E. Corrier, J. D. Williams, L. Vidal, J. R. DeLoach Predictive Value of Multiple Drag-Swab Sampling for the Detection of Salmonella from Occupied or Vacant Poultry Houses. *Avian Diseases*, 1994; 38, (3): 461-466.

Appendix LII

Original: English
December 2006

REPORT OF THE SECOND MEETING OF THE OIE *AD HOC* GROUP ON DOG POPULATION CONTROL

Paris, 29-30 November–1 December 2006

_____

The OIE *ad hoc* Group on Dog Population Control (hereinafter referred to as the *ad hoc* Group) met at the OIE Headquarters from 29 November to 1 December 2006.

The members of the *ad hoc* Group and other participants are listed at Appendix I. The Agenda adopted is given at Appendix II.

On behalf of the Director General, the Deputy Director General (Administration, Finances, Staff management) of the OIE, Dr. J.L.Angot, welcomed all members and thanked them for their interest in this important topic. He outlined how the OIE has carried out its mandate in animal welfare through its permanent Animal Welfare Working Group (AWWG). Dr Angot also informed the ad hoc group on current animal welfare issues and the expectations of Member Countries.

Dr. Angot noted that animal welfare issues associated with stray animal control are very complex and underlined the importance of this *ad hoc* Group producing guidelines on dog population control.

The Chair of the *ad hoc* Group, Dr Abdul Rahman, started the discussion with reconfirmation of the terms of reference that the AWWG endorsed. The terms of reference were adopted with some modification as presented in Appendix III. In further discussion the group agreed that that Dr. A. Wandeler would produce a short report on the presentation made during the meeting to address the first point in the terms of reference (see Appendix IV).

The OIE Questionnaire on rabies and dog population control has been revised and sent to OIE Member Countries (see Appendix V). The deadline for response is 15 January 2007. Dr. Kahn informed the ad hoc group that it had been necessary to modify the Questionnaire to take account of work done by the Scientific Department in preparing for the OIE/WHO Conference for Rabies Control in Eurasia.

The Questionnaire aims to collect information relevant to the second point of the terms of reference. Dr. P. Dalla Villa from the OIE Collaborating Center for Veterinary Training, Epidemiology, Food Safety and Animal Welfare (Teramo) will analyse the replies and provide a report by 15 February based on the information obtained by the Questionnaire. Dr. Elly Hiby will circulate some references dealing with the assessment of existing stray dogs control programmes.

Appendix LII (contd)

Dr. Wilkins requested that OIE consider sending the questionnaire to organizations other than the Veterinary Services. It was agreed that the official response would be that provided by the Veterinary Services. While it would be useful to obtain other contributions, Dr Kahn explained that the OIE would not normally circulate to other organisations directly but any of the ad hoc group members could bring additional material to the meeting and are encouraged to do this.

The *ad hoc* group has completed the work in the terms of reference i.e. the Identification of Animal Welfare issues, during its first meeting. Only one change was added by the *ad hoc* Group, this was a clarification that 'clubbing' is not generally considered an acceptable killing method. The finalised report on this issue in presented in Appendix VI

The definitions elaborated by the AHWG at the first meeting were revised and modified and included in the draft Guidelines (see Appendix VII).

The *ad hoc* Group drafted a document 'Guidelines on Dog Population Control' (see Appendix VII). This draft document needs additional work, which will be conducted electronically with the goal of circulating a revised draft among the Group members and sending a draft Guideline document to the AWWG and the Terrestrial Code Commission as early as possible in 2007.

Expanded text on certain topics covered in the Guidelines will be provided by members of *ad hoc* Group. Dr. E. Hiby will send a contribution on different tools for monitoring and evaluating dog population control programs. Dr. E. Marcos will send a contribution regarding the influence of human behaviour and means of using education to support dog population control programs. Dr. D. Wilkins will prepare a contribution on how the veterinary services can work in partnership with Government Agencies and private organizations in the development, delivery and evaluation of dog population programmes.

The *ad hoc* Group elaborated a work programme for attention in the period following the meeting (see Appendix VIII).

.../Appendices

Appendix LII (contd)

Appendix I

MEETING OF THE OIE *AD HOC* GROUP ON
DOG POPULATION CONTROL

Paris, 29-30 November–1 December 2006

_____

List of participants

MEMBERS OF THE *AD HOC* GROUP

Dr Sira Abdul Rahman (Chair)
Retd. Dean Bangalore Veterinary College
No 123, 7th B Main Road
4th Block(West)
Jayanagar, Bangalore 560 011
INDIA
Tel - Fax: (91-80) 6635210
E-mail: shireen@blr.vsnl.net.in

Dr Ahmed Benelmouffok
Direction des Service Vétérinaires
Ministère de l'agriculture
et du développement rural d'Algérie
12, boulevard Colonel Amirouche
16000 Alger
Algérie
E-mail: abenelmouffok@sante.dz

Dr Paolo Dalla Villa
Istituto Zooprofilattico Sperimentale
dell'Abruzzo e del Molise "G. Caporale"
OIE Collaborating Centre for Veterinary
Training, Epidemiology, Food Safety
and Animal Welfare
Campo Boario
64100 Teramo - Italy
Tel. +39 0861332280
Fax: +39 0861332251
E-mail: p.dallavilla@izs.it

Dr Cathleen A. Hanlon
V.M.D., Ph.D.
Centers for Disease Control and
Prevention
1600 Clifton Road
Atlanta, GA 30333
ETATS UNIS
Tel.: 404-639-1050
Fax: 404-639-1058
E-mail: chanlon@cdc.gov

Dr Elly Hiby
Companion Animals Director
WSPA
World Society for the Protection of
Animals
14th Floor, 89 Albert Embankment
London SE1 7TP
UNITED KINGDOM
Tel: 44 (0) 2075875000
Fax: 44 (0) 2075875057
E-mail: EllyHiby@wspa.org.uk

Dr Edgardo Raúl Marcos
Instituto de Zoonosis Luis Pasteur
Avda. Díaz Vélez 4821
C1405DCD- Buenos Aires
Argentina
Tel.: (54-11) 4958-3927
E-mail: subdirpasteur@gmail.com

Dr Alexander Wandeler
Center of Expertise of Rabies CFIA/ACIA
Ottawa Laboratory Fallowfield
3851 Fallowfield Road
Nepean, Ontario, K2H 8P9
CANADA
Tel: (613) 228-6698
Fax: (613) 228-6669
E-mail: wandelera@inspection.gc.ca

Appendix LII (contd)

Appendix I (contd)

OTHER PARTICIPANTS

Dr David Wilkins
Chief Veterinary Adviser
ICFAW
c/o WSPA, 89, Albert Embankment
London SE1 7TP
UNITED KINGDOM
Tel: (44) 1403 241235
Fax: (44) 1403 241235
Email : wilkinsvet@lycos.co.uk

OIE HEADQUARTERS

Dr Bernard Vallat OIE
Director General
OIE
12, rue de Prony
75017 Paris
FRANCE
Tel: 33 - (0)1 44 15 18 88
Fax: 33 - (0)1 42 67 09 87
E-mail: oie@oie.int

Dr Sarah Kahn
Deputy Director General
OIE
FRANCE
Tel.: 33 (0)1 44.15.18.80
Fax: 33 (0)1 42.67.09.87
E-mail: s.kahn@oie.int

Dr Leopoldo Stuardo
Chargé de mission
International Trade Department
OIE
FRANCE
Tel.: 33 (0)1 44.15.18.72
Fax: 33 (0)1 42.67.09.87
E-mail: l.stuardo@oie.int

Appendix LII (contd)

Appendix II

MEETING OF THE OIE *AD HOC* GROUP ON
DOG POPULATION CONTROL

Paris, 29-30 November–1 December 2006

Agenda

1. Welcome and introduction – Dr Jean Luc Angot

2. Confirmation of Terms of Reference and any comments from participants on outcomes of first meeting of the AHGW first meeting

3. Discussion on the OIE Questionnaire (distributed before the meeting)

4. Development of draft guiding principles, including discussion of definitions and outline of document.

5. Work programme after this meeting

6. Conclusions

Appendix LII (contd)

Appendix III

TERMS OF REFERENCE FOR THE *AD HOC* GROUP ON DOG POPULATION CONTROL

1. Identification of problems caused by stray dogs (zoonoses, environmental pollution, nuisance, behaviour, traffic accidents).

2. Assessment of existing substantial dog population control programmes.

3. Identification of Animal Welfare issues created by dog population control programmes.

4. Propose practical solutions to the animal welfare problems created by dog population control programme providing guidelines.

Appendix LII (contd)

Appendix IV

DOGS AND ZOONOSES

The following is a partial list of zoonotic diseases transmitted by dogs. A large proportion of theses zoonoses are not dog specific, but dogs may be involved in maintaining a focus of infection.

Dog bites

Dog bites, though not fitting the definition of zoonosis, are the most prominent health condition caused by dogs.

- Dog bites are frequent
- ~ 1% of emergency department visits due to animal bites (70 to 90% dog)
- In North America < 10% are of stray dog origin

The following table provides an example of dog bites recorded by household interviews in different socioeconomic settings of Sri Lanka in the 1980s and 1990s.

Town	household interviews	"owned" dogs per km2	people bitten by dogs per year and 100,000 inhabitants
Moratuwa	218	3750	1,097
Galle	222	2550	1,610
Kataluwa	219	170	1,272
Tanamalwila	120	10	12,500
Negombo	127	1700	1,214
Deniyaya	164	n.d.	9,756
Weligama	109	0	427

Please note the high bite incidence in Tanamalwila, a rural area with dispersed farmsteads, in which dogs may fulfill guard functions.

Dogs and Bacterial Zoonoses

Bite-associated bacterial infections:

- Pasteurellosis (Pasteurella canis, Pasteurella multocida)
- Capnocytophaga canimorsus (normal oral flora)
- Numerous others, incl. Clostridium tetani

Gastrointestinal bacterial infections:

- Salmonellosis
- Yersiniosis (Yersinia enterocolitica)
- Others (Helicobacter canis, etc.)
- Campylobacteriosis

Respiratory bacterial infections:

- Bordatella bronchiseptica
- Mycobacterium
- Streptococcosis
- Q fever
- Brucellosis
- Leptospirosis
- Vector-borne zoonoses:

Appendix LII (contd)

Appendix IV (contd)

Lyme borreliosis
Ehrlichiosis
spotted fever related rickettsioses

Dogs and Protozoan Zoonoses

- Leishmania (visceral leishmaniasis)
- Giardia
- Entamoeba
- Cryptosporidium
- Cyclospora
- Microsporidia

Dogs are mostly incidental hosts

Dogs and Trematode Zoonoses

- Clonorchis
- Alaria

Dogs and Cestode Zoonoses

- Echinococcus granulosus (in African surveys between 1% and 64% of examined dogs infected)
- Echinococcus multilocularis (fox tapeworm, in some areas high prevalence in dogs)
- Taenia sp. hydatic cysts
- Dog transmission of other Cestodes of minor importance

Dogs and Nematode Zoonoses

- Toxocariosis
- Ancylostomatosis
- Filarioses (human infections accidental)

Dogs and Ectoparasitic Zoonoses

Some ectoparasites common on dogs, such as fleas, can have zoonotic implications. Mites inducing different forms of mange in dogs may also occasionally be transmitted to humans.

Dogs and Rabies

- 30 to 60,000 human rabies deaths annually
- >95% due to transmission from dogs
- Mostly in Asia and Africa
- Dog rabies eliminated in the 20th century in Europe and North America and in parts of the Western Pacific Region
- Dog rabies control becoming successful in Latin America

Human Rabies

Modern Postexposure Prophylaxis (PEP) is highly effective ? human rabies is preventable

Possible reasons for failure to apply proper PEP:

- not available (logistically, economically),
- necessity of proper PEP not recognized,
- not in compliance with belief systems (religion, world view).

Partial Bibliography

Macpherson CNL, Meslin FX, Wandeler AI, eds, 2000: Dogs, Zoonoses and Public Health. Wallingford & New York, CABI Publishing.

Schantz P., 1989: Toxocara larva migrans now. Am J Trop Med Hyg, 41, 21-34.

Wandeler A.I., Budde A., Capt S., Kappeler A. & Matter H. (1988). Dog ecology and dog rabies control. *Rev. Infect. Dis. 10*, suppl 4, S684 - S688.

Wandeler A.I., Matter H.C., Kappeler A. & Budde A. (1993). The ecology of dogs and canine rabies: a selective review. *Revue scientifique et technique* de l'Office international des Epizooties, 12, 51-71.

Appendix LII (contd)

Appendix V

Rabies Questionnaire

Towards Rabies Elimination in Eurasia 28-30 May 2007 Paris (France)

Please return completed by email questionnaire to: François DIAZ <f.diaz@oie.int> and only complete the hardcopy where email facilities are not available, not later than 15 January 2007

Country (please indicate your country):

Name and details of the contact person filling in the questionnaire:

Is there a national reference laboratory[1]? **Yes** ☐ **No** ☐

1. Rabies control - legislation

1.1. Is dog rabies present in the country/territory?[1]

Widespread	Limited distribution	No

1.2. Is rabies in animals a notifiable disease in your country? [4] **Yes** ☐ **No** ☐

1.3. Is a national rabies legislation in force for human and animal rabies prevention and control in your country?[1]

	National rabies legislation			
For human	Yes		No	
For animal	Yes		No	

Which Agencies (Ministry, Service, Organization, etc) are responsible for enforcement of the legislation?

4 Tick the appropriate box

Appendix LII (contd)

Appendix V (contd)

2. Rabies data transfer & information

2.1. How is the rabies data transfer organized in your country and to whom are data reported? [1]

Periodicity[1]		Data transmission[1]		International organisation transfer[1]		
Monthly	Annually	Computer	Paper sheet	OIE	WHO (Rabnet)	Others

3. Rabies surveillance

3.1. How many animals were submitted for rabies diagnosis ?[2]

		2005		2006	
		positive	negative	positive	negative
Domestic animals	cats and dogs				
	others				
Wildlife	foxes				
	raccoon dogs				
	bats				
	others				
Total					

3.2. How many human rabies deaths were reported? [2]

	origin	2005	2006
Cases confirmed by laboratory tests	bat		
	other wildlife		
	dog		
	unknown		
Cases diagnosed on clinical grounds only	bat		
	other wildlife		
	dog		
	unknown		
Total			

3.3. How would you describe the country's or territory's veterinary diagnostic capacity for rabies?

Adequate	Adequate in some areas	Inadequate

3.4. Are there relevant public education programs e.g. on risks associated with dog bites, rabies?

Yes	In some areas	No	Don't know

4. Rabies prevention

4.1. Post-exposure prophylaxis

4.1.1 How many persons were treated in 2005 and 2006[2]?

	2005	2006
With brain tissue vaccine		
With cell culture vaccine		

4.1.2. Did vaccine failures occur[2]?

4.1.3. Are rabies immunoglobulins (ERIG or HRIG) available for category III exposure[1]?

Yes		**No**	

[1] Tick the appropriate box
[2] Please provide data.

4.2. Vaccination of domestic animals

4.2.1. Is vaccination of domestic animals compulsory ?[1]

	Yes	No
Compulsory		
For restricted areas only		
Whole country		

Please indicate Yes (Y) or No (N) for the following species:

dog		cat		cattle		sheep		horse	

4.2.2. If rabies occurs in dogs, does the government implement rabies vaccination programs in dogs?

Yes	In some areas	No	Don't know

Appendix LII (contd)

Appendix V (contd)

4.2.3. How many dogs were vaccinated and what is the vaccination coverage?[5]

	2005	2006
Number of dogs in your country		
Number of vaccinated dogs		
vaccination coverage (%)		

4.2.4. Ratio (in %) of dog population in your country[2]

- owned dogs, not free-roaming	
- owned dogs, free-roaming	
- ownerless dogs, stray/feral	
- Human/dog ratio (e.g. 1 human: 3 dogs)	

4.2.5. Control of stray dogs (Please fill in the annex A)

5. Rabies control in wildlife : oral vaccination programmes

5.1. How many vaccination campaigns or field trials are undertaken each year[1]?

N° of campaigns	1		2		3		>3	
N° of field trials	1		2		3		>3	

5.2. What was the size of the vaccination area [km²] between 2005 and 2007?[2] What was the average bait density per km²?

	size (km^2)	bait density/km^2
2005		
2006		
2007		

5.3. What was the average vaccination rate (given by seroprevalence or tetracycline rates in % in adult and juvenile target species) in recent vaccination campaigns?[2]

	Tetracycline (%)		**Seroprevalence (%)**	
	Adults	juvenile	Adults	juvenile
2005				
2006				

[1]Tick the appropriate box
[2]Please provide data

5.4. Is there other means used for rabies control in wildlife?

If yes, please give details :

Return completed questionnaire to:
François DIAZ < f.diaz@oie.int>
not later than 15 January 2007

Appendix LII (contd)

Appendix V (contd)

Rabies Control and Stray Dogs Questionnaire

Please return completed by email questionnaire to: François DIAZ <f.diaz@oie.int> and only complete the hardcopy where email facilities are not available, not later than 15 January 2007

Country (please indicate your country):

Name and details of the contact person filling in the questionnaire:

Is there a national reference laboratory[1]? **Yes** ☐ **No** ☐

1. Rabies control - legislation

1.1. Is dog rabies present in the country/territory?[1]

Widespread	Limited distribution	No

1.2. Is rabies in animals a notifiable disease in your country? [6] **Yes** ☐ **No** ☐

1.3. Is a national rabies legislation in force for human and animal rabies prevention and control in your country?[1]

	National rabies legislation			
For human	Yes		No	
For animal	Yes		No	

Which Agencies (Ministry, Service, Organization, etc) are responsible for enforcement of the legislation?

6 Tick the appropriate box

Appendix LII (contd)

Appendix V (contd)

2. Rabies data transfer & information

2.1. How is the rabies data transfer organized in your country and to whom are data reported? [1]

Periodicity[1]		Data transmission[1]		International organisation transfer[1]		
Monthly	Annually	Computer	Paper sheet	OIE	WHO (Rabnet)	Others

3. Rabies surveillance

3.1. How many animals were submitted for rabies diagnosis ?[2]

		2005		2006	
		positive	negative	positive	negative
Domestic animals	cats and dogs				
	others				
Wildlife	foxes				
	raccoon dogs				
	bats				
	others				
Total					

3.2. How many human rabies deaths were reported? [2]

	origin	2005	2006
Cases confirmed by laboratory tests	bat		
	other wildlife		
	dog		
	unknown		
Cases diagnosed on clinical grounds only	bat		
	other wildlife		
	dog		
	unknown		
Total			

3.3. How would you describe the country's or territory's veterinary diagnostic capacity for rabies?

Adequate	Adequate in some areas	Inadequate

3.4. Are there relevant public education programs e.g. on risks associated with dog bites, rabies?

Yes	In some areas	No	Don't know

4. Rabies prevention

4.1. Post-exposure prophylaxis

4.1.1 How many persons were treated in 2005 and 2006[2]?

	2005	2006
With brain tissue vaccine		
With cell culture vaccine		

4.1.2. Did vaccine failures occur[2]?

4.1.3. Are rabies immunoglobulins (ERIG or HRIG) available for category III exposure[1]?

Yes		**No**	

[1] Tick the appropriate box
[2] Please provide data.

4.2. Vaccination of domestic animals

4.2.1. Is vaccination of domestic animals compulsory ?[1]

	Yes	No
Compulsory		
For restricted areas only		
Whole country		

Please indicate Yes (Y) or No (N) for the following species:

dog		cat		cattle		sheep		horse	

4.2.2. If rabies occurs in dogs, does the government implement rabies vaccination programs in dogs?

Yes	In some areas	No	Don't know

Appendix LII (contd)

Appendix V (contd)

4.2.3. How many dogs were vaccinated and what is the vaccination coverage?[7]

	2005	2006
Number of dogs in your country		
Number of vaccinated dogs		
vaccination coverage (%)		

4.2.4. Ratio (in %) of dog population in your country[2]

- owned dogs, not free-roaming	
- owned dogs, free-roaming	
- ownerless dogs, stray/feral	
- Human/dog ratio (e.g. 1 human: 3 dogs)	

4.2.5. Control of stray dogs (Please fill in the annex A)

5. Rabies control in wildlife : oral vaccination programmes

5.1. How many vaccination campaigns or field trials are undertaken each year[1]?

N° of campaigns	1		2		3		>3	
N° of field trials	1		2		3		>3	

5.2. What was the size of the vaccination area [km²] between 2005 and 2007?[2] What was the average bait density per km²?

	size (km^2)	bait density/km^2
2005		
2006		
2007		

5.3. What was the average vaccination rate (given by seroprevalence or tetracycline rates in % in adult and juvenile target species) in recent vaccination campaigns?[2]

	Tetracycline (%)		**Seroprevalence (%)**	
	Adults	juvenile	Adults	juvenile
2005				
2006				

[1]Tick the appropriate box
[2]Please provide data

5.4. Is there other means used for rabies control in wildlife?

If yes, please give details :

Return completed questionnaire to:
François DIAZ < f.diaz@oie.int>
not later than 15 January 2007

OIE Questionnaire – Annex A: "Stray Stray Dogs Control"

I.General information on the dog poopulation

1. Are free roaming dogs seen a problem?

Yes	In some areas	No	Don't know

2. If **YES**, can you comment please indicate the main problem(s). **(*)**?

Dog bites	Rabies	Other diseases	Nuisance eg. dog faeces	Others

3. Are free roaming dogs a problem in the following areas? **(*)**

Big cities	Small towns & villages	Wilderness areas

4. Are dog attacks/bites on humans reportable?

Yes	In some areas	No	Don't know

5. Number of notified cases of dog attacks/bites each year:

Actual	Estimated	Not available

(*) Please assign a number according to the following criteria: **1=**most important/common; **2=**fairly important/uncomon; **3=**not important/rare

II. Stray Dogs Control

6. Is dog registration required by law?

Yes	In some areas	No	Don't know

7. Is dog identification required by law?

Yes	In some areas	No	Don't know

8. Are dog population control control programs are used?

Yes	In some areas	No	Don't know

9. Who manages the population control programs?

Central Government.	Regions/ Districts	Municipalities	NGO s

10. What is the annual budget for control programs? (state currency)

Sponsor	Actual	Estimated	Not available
Govern-ment			
Region/ District			
Munici-palities			
NGO			

11. Is it official policy to kill/euthanize free-roaming dogs?

Yes	In some areas	No	Don't know

12. If **YES**,.what methods for killing/euthanasia?

Injectable barbiturate	
Injectable other (please identify substance used)	
Poisoned baits	
Electrocution	
Gassing	
Others (specify)	

13. Are population control measures other than killing /euthanasia used?

Yes	No	Don't know

14. Is pharmacological contraception used?

Yes	No	Don't know

15. Is surgical sterilization used?

Yes	No	Don't know

16. Information on dog shelters/pounds:

	Publicly Managed shelters/pounds	Privately Managed shelters/pounds
Number of facilities		
Number of dog places available		

17. Approximately what percentage of shelter dogs placed in shelters is adopted each year?

Other Comments:

Appendix LII (contd)

Appendix VI

IDENTIFICATION OF ANIMAL WELFARE ISSUES

The following were identified as major issues arising out of stray dog control programmes.

1. Inhumane methods of killing in the field (e.g. shooting and poisoning)
2. Improper dog handling and care
3. Inhumane methods of catching -
4. Unsuitable transport such as poorly designed vehicles and improper use
5. Improper loading and unloading
6. Poor holding facilities (shelter/re-homing centre/pound) -
7. Lack of euthanasia in the case of incurable animal suffering
8. Inhumane killing of captured dogs (e.g. clubbing/electrocution/gassing/drowning etc.)
9. Poor surgical techniques, pre-operative and post-operative -
10. Inappropriate Adoption/re-homing/reuniting to irresponsible owner or inappropriate home.
11. Release into inappropriate environment

Appendix LII (contd)

Appendix VII

DRAFT GUIDELINES DOG POPULATION CONTROL

Preamble

Stray and feral dogs pose serious human health, socio-economic, political and animal welfare problems in many countries of the world. Many of these are developing countries and others fall in the least developed category. Whilst acknowledging human health is a priority including the prevention of zoonotic diseases notably rabies, the OIE recognises the importance of controlling dog population without causing unnecessary or avoidable animal suffering. Veterinary Services should play an important role in preventing zoonotic diseases, ensuring animal welfare and should be involved in dog population control.

Guiding principles (to be completed)

The following guidelines are based on those laid down in Section 3.7 of the *Terrestrial Animal Health Code*. Some additional principles are relevant to these guidelines:

- The promotion of responsible dog ownership can significantly reduce the numbers of stray dogs and the incidence of zoonotic diseases
- Because dog ecology is linked with human activities proper management of dog populations has to be accompanied by changes in human behaviour.

Article 1

Definitions

a) **Stray Dog:** dog not under direct control or not restricted

Types of stray dog

- free roaming owned dog currently not under direct control or restriction
- free roaming dog with no owner
- feral dog: domestic dog reverted to the wild (natural) state and no longer directly dependant upon humans for successful reproduction.

b) **Owned Dog :** dog with a person or persons that is responsible for this animal.

c) **Persons:** This can include more than one individual, either members of a family, household or organisations keeping animals

d) **Responsible Ownership:** The condition under which the owner of an animal accepts and commits him/herself to assume a series of duties focused on the satisfaction of the psychological, environmental and physical **needs** of his/her animal; as well as to the prevention of risks (potential of aggression, disease transmission or **injuries** to people) that his/her animal may cause to the community or the environment

e) **Euthanasia: the** act of inducing death in a humane manner.

f) **Competent Authority:** means the *Veterinary Services*, or other Authority of a Member Country, having the **responsibility** and competence and for ensuring or supervising the implementation of animal health measures or other standards in the *Terrestrial Code*.

Appendix LII (contd)

Appendix VII (contd)

g) Dog Population Control Programme: A programme with the objective of reducing the number of stray dogs.

h) Carrying capacity: is the upper limit of the dog population density that could be supported by the habitat **through** the availability of resources (food, water, shelter). Human tolerance is a relevant factor.

Article 2

Dog population control program optional objectives

a) Improve health and welfare of dog population

b) Reduce numbers of stray dogs

c) Create a rabies immune dog population

d) Promote responsible ownership

e) Reduce the risk of other zoonotic diseases

f) Manage other risks to human health

g) Prevent harm to the environment.

Article 3

Responsibilities and competencies (To be completed)

a) *Veterinary Administration* is responsible for implement the animal health legislation

b) Other government agencies

c) Private *Veterinary Services*

d) Non Governmental Organisations

e) Local government.

Article 4

Considerations in planning dog population control

In the development of dog control programs it is recommended that the authorities establish an advisory group which would include appropriate experts, veterinarians and other stakeholders. The main purpose of this advisory group would be to analyse the problem, identify the causes and propose solutions for the short and long term.

a) Identifying the sources of stray dogs

   i) Allowing owned animals to roam unsupervised

   ii) Abandonment of unwanted animals

iii) Uncontrolled breeding within owned (private and commercial) population and subsequent abandonment of offspring.

iv) Uncontrolled breeding within Stray population

b) Estimating the existing number, distribution and ecology **(To be completed)**

Using available practical tools such as registers of dogs, population estimates, surveys of dogs, owners, dog shelters and associated veterinarians etc. A methodology must be established in order to make an estimate of the total dog population. The same methodology must be used at appropriate intervals to assess population trends. Find references if possible

i) Identify the important factors relevant to dog carrying capacity of the environment. These generally include food, shelter, water, human behavior.

ii) Add examples of good methodology if possible

c) Legislation

Legislation that would assist authorities in establishing successful dog control programmes would include the following key elements:

i) Registration and identification (licensing)

ii) Rabies vaccination

ii) Veterinary procedures (e.g. surgical procedures)

iv) Control of dog movement (restrictions within the country)

v) Control of dog movement (international trade and movement)

vi) Control of dangerous dogs

vii) Commercial dog production

viii) Environmental controls (abattoirs, rubbish dumps, dead stock facilities)

ix) Dog shelters

x) Animal welfare, including humane capture and killing methods.

d) Resources available to authorities

i) Human resources

ii) Financial resources

iii) Technical tools

iv) Infrastructure

v) Cooperative activities

Appendix LII (contd)

Appendix VII (contd)

vi) Public-private-NGO

vii) Central-state or province-local

Article 5

Description of control measures

a) Education and promotion of responsible ownership **(To be completed)**

The health and welfare of domestic dogs may be improved through the promotion of human supervision and care of these animals. Also, minimizing stray dogs combined with educating humans, particularly children about specific behaviours, can reduce dog bite injury and prevent some major zoonotic diseases.

Responsible dog ownership includes the control of reproduction of dogs under direct human supervision such that offspring of owned dogs are not abandoned.

b) Registration and identification (licensing)

A core component of dog population management by Competent Authority is the registration and identification of owned dogs and granting licences to owners. This may be emphasized as part of responsible dog ownership and is often linked to animal health programs, for example, mandatory rabies vaccination.

Registration and identification of animals may be used as a tool to encourage dog reproduction control of owned dogs through a reduced fee schedule to register neutered dogs.

c) Control of reproduction of dog population, focus on section of population identified as sources of stray dogs; methods used include**(To be completed)**

i) Surgical sterilisation

ii) Chemical sterilisation

iii) Chemical contraception

iv) Restriction of female dogs during oestrus

d) Removal and handling

Veterinary Services or other competent authority should collect dogs that are not under direct supervision and verify their ownership. Any persons conducting these activities should capture, transport, and hold the animals under humane conditions. The competent authority should develop and implement appropriate legislation to regulate these activities.

e) Management of dogs removed from communities

i) Competent authorities have the responsibility to develop minimu m standards for the housing (physical facilities) and care of these dogs. There should be a provision for holding the dogs for a reasonable period of time to allow for reunion with the owner and, as appropriate, for rabies observation.

ii) Dogs that are removed from a community may be reunited with the owner or offered to new owners for adoption. This provides an opportunity to promote responsible ownership including animal health care through vaccination against common diseases of dogs, control of ecto- and endo-parasites, and vaccination against major zoonotic diseases such as rabies. In addition, incentives for dog reproduction control may be provided through the provision of neutering services at a reduced rate or the release for adoption of only neutered animals. The effectiveness of this strategy ie offering dogs to new owners may be limited due to the suitability and number of dogs.

iii) Dogs that are removed from a community may in some cases be provided health care (rabies vaccination), neutered, and released to their local community at or near the place of capture. The beneficial effect of this practice for dog welfare and population management is unknown. With regard to disease control, such as for rabies and possibly others, some beneficial effect may be realized. This may be short or long time **(To be completed)**

iv) Dogs that are removed from a community may, in some cases, be too numerous to place in human care. If elimination of the excess animals is the only option, killing should be under regulation by Competent Authority and conducted using humane methods.

f) Environmental controls

i) Reduction of the carrying capacity. Steps should be taken to reduce the carrying capacity, for example by fencing rubbish dumps, exclusion from abattoirs, and installation of animal proof rubbish containers.

ii) Reduction of carrying capacity should be linked to reduction in animal population by other methods, to avoid animal welfare problems.

g) Control of dog movement – international (export/import) CB Refer to the Code Chapter 2.2.5

h) Control of dog movements – within country (e.g. leash laws, roaming restrictions)

i) Regulation of commercial dog trade

j) Control of dangerous dogs

k) Euthanasia.

The methods are described in the order of mechanical, electrical and gaseous, not in an order of desirability from an animal welfare viewpoint.

Appendix LII (contd)

Appendix VII (contd)

Summary of euthanasia methods (To be completed)

Procedure	**Capture / Handling**	**Considerations**
Barbiturates IV ICrd IP	 yes yes yes	Proper dosage. Veterinary supervision? Trained personnel. Close restrain. Age range. Prior sedation. Proper disposal.
T61	yes	Hazardous to personnel
Tanax		
Carbon Monoxide (CO)	yes	Impurities. Local regulation. Temperature conditions. Hazards
Argon and Nitrogen		Safe if used with ventilation
CO2		Because CO2 is heavier than air, incomplete filling of a chamber may permit animals to climb or raise their heads above the higher concentrations and avoid exposure. Euthanasia by exposure to CO2 may take longer than euthanasia by other means.
Chloroform	yes	Not recommended
Electrocution	yes	Voltage stability. Equipment. Hazardous to personnel
Blunt Trauma	yes	Recommended on puppies
Captive bolt	yes	Requires skill, adequate restraint and proper placement of captive bolt
Shooting at close quarters	no	May be dangerous
Shooting at distance	no	May be dangerous

(To be developed)

1. Introduction
2. Requirements for effective use
3. Advantages
4. Disadvantages
5. Conclusion

Article 6

Monitoring and Evaluation (To be completed)

Authorities have to identify meaningful indicators of control programs performances.

1. Monitoring the animal welfare during the programmes

Appendix LII (contd)

Appendix VII (contd)

2. Feedback from the community

3. Periodic evaluation against the targets and ultimately the initial assessment (population survey, vaccination titres)

4. Control of zoonotic diseases especially rabies. Reduction in the number of dog bites and cases of both human and animal rabies.

5. Cost benefit analysis

6. Interpretation, documentation and recording of results

Article 7

Research needs (To be completed)

1. Chemosterilants

2. Imunosterilants

3. Analysis on social and economic impact of zoonotic diseases in dogs

4. Oral rabies vaccination systems for dogs

5. Ovicidal drugs against echinococcosis in dogs

6. Zooanthropology **(To be completed)**

7. Epidemiology of rabies and other zoonotic diseases in dogs

Article 8

International cooperation (To be completed)

1. Role of OIE Diagnostic reference laboratories

2. Participation of countries in international surveillance networks

3. Role of international organisations (OIE, WHO) and NGOs

Appendix LIII

OIE questionnaire on DOG POPULATION CONTROL

EXECUTIVE SUMMARY

Background and objectives of findings

The questionnaire main objectives were to collect information relevant to the assessment of existing substantial dog population control programs within the OIE member countries and to suggest an OIE role in contributing to the activities related to dog population control, taking into account the different possible features of the problem. It also tried to identify topics for further studies and strategic plans that require attention and funding by national governments and donors.

It was needed to modify the original dog population control questionnaire considering the work done by the Scientific Department in preparing the OIE/WHO Conference on Rabies Control in Eurasia.

The re-draft questionnaire was included to the rabies questionnaire as Annex and sent to all OIE Member Countries; official responses were provided by the State Veterinary Services.

The countries which returned a correctly filled questionnaire were 44:

Albania	*Canada*	*Italy*	*Saudi Arabia*
Algeria	*Chile*	*Lithuania*	*Slovak Rep.*
Armenia	*Colombia*	*Luxembourg*	*Slovenia*
Australia	*Costa Rica*	*Morocco*	*Sri Lanka*
Austria	*Cyprus*	*Mozambique*	*Swaziland*
Azerbaijan Rep.	*Czech Rep.*	*Nepal*	*Switzerland*
Barbados	*Denmark*	*Netherlands*	*Taiwan*
Belarus	*France*	*Norway*	*Togo*
Belize	*Germany*	*N. Caledonia*	*United Kingdom*
Botswana	*Greece*	*Philippines*	*U.S.A.*
Brunei	*Israel*	*Poland*	*Zimbabwe*

Appendix LIII (cond)

General information on the dog population

- 51% respondents declared that free roaming dogs are a problem, 29% that is a problem only in some areas and 20%that it is not a problem.
- Dog attacks/bites are reported in 66% of the responding countries and in some areas of the respondent countries, in 18% of the countries they are not reported, 5% of the responding countries answered don't know.
- Dog registration is compulsory in 22 of the responding countries, in 6 it is so only in some areas, in 17 it is not required at all. Data on compulsory dog identification are much consistent with the previous one.

Stray dog control measures

- Dog population control measures are in place in 18 (33%) responding countries, in 11 (26%) they are used only in some areas, in 14 (33%) they are not in place.
- Dog population control program are mostly managed by municipalities (50%), and to a lesser extent at national or regional/district level.
- Fourteen countries declared some form of budget (actual or/and estimates figures) used in dog population control programs, 30 countries did not answered to the question (see table 2).
- Fifteen (34%) of respondents declared that it is official policy to kill/euthanize free-roaming dogs, 9 (20%) that it is official only in some areas, 20 (46%) that is not official. Injectable barbiturate and other injectable substances (phormol/air, T61, Ketamine overdose, Embutramidum, Potassium Chloride/anaesthesia) are the most widely used methods to kill/euthanize free roaming dogs. Gassing, electrocution, poisoned baits and other methods (shooting, penetrating captive bolt, inhalation anesthesia) are also used.
- 69% of respondents declared that other control measures than killing/euthanasia are used: in particular, 30 respondents declared that surgical sterilization is in place and 9 respondents declared that pharmacological contraception is used as a control measure.
- Twenty-six countries provided some information regarding the number and capacity of dog shelters/pounds, 18 countries did not provide any data (see table 3).
- Twenty countries declared provided some information regarding dog adoption rate, 24 countries did not provide any data(see graph 27).

Key conclusions and recommendations

- The presence of owned and unowned free roaming dogs is a mayor problem in medium and small urban areas. The attitude of individual and public could contribute to the companion animal overpopulation problem.
- Dog bites and nuisance seem to be major problems related to the presence of free roaming animals, rabies and other diseases seems to be important to a lesser extent. Some countries are concerned about the potential negative effects of inappropriate stray dog control strategy, seeking for advice, technical assistance and funding.
- The OIE could offer technical assistance through information, training and mentoring in order to promote the humane reduction of dogs' surplus and to prevent further overpopulation. This assistance should include sharing of knowledge, technology and management skills to help member countries working with local communities and scientists to develop and validate systems that are appropriate to local/national needs.
- These programs should be supported by reliable information, using statistical models based on: a) census data to determine the real size of dog population, b) the implementation of socio-ecological surveys, c) dog population dynamics studies. The OIE could also help to promote animal welfare standards and alternative approaches to the systematic killing of stray dogs (spay/neuter techniques, pharmacological contraception), supporting research on advanced methods of birth prevention (immune-contraception), and providing expertise in the development of sustainable and humane dog population control programmes with significant benefits to public health.
- Finally it will be essential to rise public awareness of the consequences of human attitudes towards animals and their quality of life. All relevant stakeholders (AW agencies, municipalities, Veterinary Services, non-governmental animal welfare organisations) should be engaged in the discussion. Systematic promotion of responsible ownership should be emphasized at individual, group, and societal level.

Appendix LIV

Laboratory Animal Welfare - Issues and Options

Discussion Paper -OIE Permanent Animal Working Group Meeting No 4

Teramo, Italy, 7 – 9 September 2005

Introduction:

The use of animals in research, testing and teaching was discussed at the February, 2004 Global Conference on Animal Welfare as a possible future element of the OIE's strategic initiative on animal welfare. This led to a formal offer of international stakeholder support from Dr. Marilyn Brown and an invitation to speak at both the AALAS annual conference and the ICLAS International Committee meeting in October 2004. Laboratory animal welfare, was one of four priority strategic items identified on the December, 2004 meeting of the Permanent Animal Welfare Working Group. The Director-General emphasized the importance of the OIE's international network of reference laboratories and diagnostic centres and the role that laboratory animals play both in these centres and in the regulatory testing of veterinary medicinal and biological products conducted by OIE member countries.

Support for OIE involvement in laboratory animal welfare was received from the floor at the May, 2005 OIE General Session and a written offer of support has subsequently been received from the CVO of Norway. The opportunity was also taken to briefly discuss potential OIE involvement in this area, with staff from the OIE Collaborating Centre for Animal Welfare in Teramo, at meetings in London and Paris in March and May, 2005 respectively.

Relevant review papers by Drs Clement Gauthier and Vera Baumanns will be published in the October 2005, OIE Scientific and Technical Review Series (SATRS) issue "Animal Welfare: Global Issues Trends and Challenges". A number of key current international issues and trends are also addressed in the concluding paper of the SATRS publication.

This discussion paper provides some selected background information, identifies some key issues and roles and makes some recommendations for initial OIE involvement in this specialised and often controversial area of animal use.

Discussion

The use of animals for scientific purposes is the subject of an extensive international literature, with a number of well established international organisations playing key roles in promoting humane science and good laboratory animal practice, in encouraging ethical debate, in countering the misinformation promulgated by "antivivisection" groups and in fostering the ethical principles of the three Rs of Russell and Burch.

Key organisations include:

- International Council for Laboratory Animal Science (ICLAS)
- American Association for Laboratory Animal Science (AALAS)
- Canadian Council for Animal Care (CCAC)
- Universities Federation for Animal Welfare (UFAW)
- Australian and New Zealand council for the Care of Animals in Research and Teaching (ANZCCART)

Appendix LIV (cond)

- American College for Laboratory Animal Medicine (ACLAM)
- European College for Laboratory Animal Medicine (ECLAM)
- European Centre for the Validation of Alternative Methods (ECVAM)
- US Interagency Coordinating Committee for the Validation of Alternative Methods (ICCVAM)
- Fund for the Replacement of Animals in Medical Experimentation (FRAME)
- Interniche
- Council of Europe ETS 123 Review
- European Food Safety Authority (EFSA) Working Group on Experimental Animal Welfare
- Organisation for Economic Cooperation and Development (OECD)
- Federation of European Laboratory Animal Science Association (FELASA)
- Zentralstelle zur Erfassung und Bewertung von Ersatz- und Ergänzungsmethoden zum Tierversuch (ZEBET)

The Three Rs of Russell & Burch have provided an important ethical underpinning for the use of animals in science and research groups are established in Baltimore, Davis, Berlin,Utrecht and London to specifically promote the Three Rs and encourage relevant research.

The Five World Congresses on Alternatives and Animal Use in the Life Sciences, held from 1993 to 2005, have made a major contribution to international dialogue on this subject. These congresses are excellent examples of a forum where a range of view-points can be heard, within a framework of problem solving and trust. Regular updates are provided on the reduction, refinement and replacement of animal use in regulatory testing of veterinary biological products, in particular.

The issue of international harmonisation of the use of animals in regulatory testing is now being addressed by the International Cooperation on Harmonisation of Technical Requirements for Registration of Veterinary Medicine Products (VICH) programme. The VICH is an international forum to provide guidance on technical requirements for the registration of new veterinary medicinal products in order to protect public health and animal health and welfare, as well as the environment. VICH is a programme of collaboration primarily between the regulatory authorities and the animal health industry of the EU, Japan and the USA. Australia, New Zealand and Canada participate as active observer members, while the OIE participates as an associate member in supporting and disseminating outcomes worldwide.

VICH was officially launched in 1996 and the factors which influenced its establishment specifically included:

- The drive to reduce the number of animals used in regulatory testing by eliminating the need for duplication of tests in each VICH region
- The international drive to harmonize regulatory standards and minimize their impact on trade

The objectives of VICH also specifically refer to establishing and monitoring harmonized regulatory requirements for veterinary medicinal products in the VICH Regions, which meet high quality safety and efficacy standards and minimize the use of test animals and costs of product development.

Replacement of animal use in veterinary undergraduate teaching is another area where major advances have been made in recent years. Considerable expertise has been developed in, for example, the veterinary schools in Norway and New Zealand and there would be scope for the OIE to facilitate uptake and adoption of such teaching techniques.

Recommendations:

In recognition of the complexity and specialised nature of this topic, it is recommended that the OIE initially adopt a very focussed strategy and establish an Ad Hoc Group of experts to address the following priority areas:

1. The development of principles and guidelines for the use of animals in regulatory testing of veterinary medicinal and biological products.
2. The development of principles and guidelines for the use of animals in veterinary undergraduate teaching.
3. Review and recommend options for OIE involvement in the use of animals in research.
4. Liaison with VICH to facilitate the regulatory acceptance and adoption of international validated non-animal test methods.
5. Identification of key international stakeholders and availability of relevant resource material.

Appendix LV (cond)

Development of animal welfare guidelines for production systems (terrestrial animals)

Discussion paper developed by the OIE Animal Welfare Working Group, 2006

Background

The OIE International Committee in May 2005 endorsed the proposals of the Animal Welfare Working Group for priorities for 2005/2006. Among those priorities was the development of animal welfare guidelines for terrestrial animal production systems.

The development of global OIE animal welfare guidelines for production systems will be challenging for a number of reasons. Worldwide, animals are raised under extremely diverse conditions ranging from intensive systems with animals kept permanently indoors, to extensive systems with little or no housing. These different systems involve very different animal welfare challenges. There are also large differences from country to country in the level of priority accorded to the welfare of food animals.

Nonetheless, because of the close link between animal welfare and animal health, guidelines designed to improve animal welfare will often lead to better animal health, productivity and food safety. Especially in cases where these relationships can be clearly demonstrated, animal welfare guidelines may be broadly acceptable to member countries.

This discussion paper sets out some of the key issues that need to be considered in developing animal welfare guidelines for production systems, and suggests next steps in this area.

Animal-based and resource-based criteria

Animal welfare guidelines may include (1) animal-based criteria and (2) resource-based criteria of animal welfare. Resource-based criteria (also called design criteria or input criteria) indicate the resources that should be provided. These often specify space allowances and dimensions, ambient temperature range, humidity, condition of the litter, air quality, availability of feed and water, frequency of inspection, and biosecurity and sanitation measures. Animal-based criteria (also called performance criteria or output criteria) are described/specified in terms of the animals' state. They often include such elements as survival rate, incidence of disease and injury, body condition scoring, the ability of animals to behave in certain ways, and the reaction of animals to their handlers.

Resource-based criteria are widely used in animal welfare assurance programs because they are often easier to evaluate and score than animal-based criteria. However, they have important limitations:

- Resource-based criteria are generally derived from research carried out with specific species/breeds and production systems, and they may not be applicable to other breeds and other production systems. For example, a space allowance that minimizes crowding-related problems in light hybrid hens in battery cages may not apply to other breeds or to other housing systems.

- The welfare of animals is strongly influenced by the skill and attitude of animal handlers, and it is difficult to develop and implement resource-based criteria to describe these elements.

- Resource-based criteria are often created in response to well researched problems such as over-crowding and air quality, and they may not apply to new or emerging problems such as new diseases or genetic modifications of the animals.

Appendix LV (cond)

Perhaps because of these limitations, research shows that animal production units that conform to the same resource-based criteria may still have widely varying animal welfare outcomes.

Animal-based criteria are not as widely used in existing animal welfare standards but they should, in principle, be applicable to any production system. In fact animal based criteria may provide a better measure of the animal welfare outcomes because they reflect the influence of variables (e.g. experience and attitude of handlers, presence of emerging diseases) that may be missed by resource-based criteria. However, many animal welfare concerns are difficult to address using animal-based criteria. Examples include the capacity of the ventilation system to prevent extreme temperatures, the use of pain mitigation for surgical procedures, and the implementation of appropriate biosecurity measures.

A reasonable approach, therefore, would be for the OIE to incorporate animal-based criteria in its guidelines where feasible and to supplement these with resource-based criteria where there is a good scientific basis for doing so. Thus, for example, animal welfare guidelines for chickens might specify certain levels of survival and freedom from disease and injury (animal based criteria) and would also recommend requirements for ambient temperature, humidity, air quality and litter quality (resource based criteria) for birds that are kept indoors.

Clarifying the objectives of animal welfare guidelines

Animal welfare guidelines are generally designed to achieve one or more of three objectives:

1. to protect the basic health and normal functioning of animals, for example by preventing and alleviating disease, injury, malnutrition and similar harm;

2. to protect the psychological well-being of animals, for example by preventing and alleviating pain, fear, distress and discomfort;

3. to provide living conditions that are considered to be 'natural' for the species, for example by providing a social and physical environment where animals can perform key elements of their natural behaviour.

The three objectives overlap. For example, preventing injury is important for psychological well-being, and preventing pain and fear can be important for normal functioning. However, the overlap is not perfect. For example, environments that limit the spread of disease do not necessarily allow natural behaviour and vice versa.

The three objectives are based on somewhat different bodies of scientific research. The research relevant to objective 1 includes studies of survival rate, incidence of disease and injury, body condition scoring, and productivity measures. The research relevant to objective 2 includes studies of pain, fear and distress in animals, studies of ways to alleviate such states, and studies that determine the animals' own preferences and aversions. Research relevant to objective 3 includes studies of the normal (and abnormal) behaviour of animals, how these are influenced by the social and physical environment, and the strength of the animals' motivation to carry out elements of their natural behaviour.

In the past, confusion has sometimes occurred because different standards, which are all claimed to address animal welfare, have involved very different requirements. Often such differences arise because the different standards address different objectives and rely on different bodies of research. In order to avoid confusion, it is important that recommendations be clear as to the welfare objectives they are intended to address.

Standards based on objective 1, because they reinforce basic health and functioning of animals, tend to be the most aligned with the traditional objectives of animal producers and veterinarians. The cost/benefit ratio is often favourable because implementation often leads to measurable improvements in productivity (e.g. improved survival or reduced mortality due to stress and disease). Hence, these standards are likely to be the most acceptable to animal producers and in cultures where concern for the welfare of animals is relatively low. However, in cultures where the public is actively interested in and concerned about animal welfare, standards based on objective 1 are likely to be viewed as minimum standards that promote productivity rather than animal welfare per se.

Standards based on objective 2 (alleviating pain and distress, etc.) vary in their ease of implementation and their economic implications. Some (such as handling animals in ways that do not cause distress) should be relatively easy to implement, involve little or no cost, and may produce measurable economic benefit. Others (such as requiring anaesthesia for minor surgery) may be difficult and costly to implement. The level of acceptance by producers will likely vary accordingly. In countries which accord a high priority to animals welfare, standards based on objective 2 tend to be strongly supported by the concerned public who generally see the alleviation of pain and distress as a key element of animal welfare.

Standards based on objective 3 (providing more 'natural' living conditions) can have widely varying implications. Some requirements, such as providing more natural social grouping of animals, can be achieved in confinement production systems with only small cost implications. Others may require substantial redesign of animal environments and incur higher land and labour costs. Such standards may, however, allow producers using alternative production systems to market products to consumers who support such standards.

In proposing OIE guidelines on animal production systems, one approach would be to focus principally on objective 1 because of the clear linkage with animal health and traditional veterinary interests, and to propose the adoption of guidelines based on objectives 2 and 3 where this is feasible and appropriate. If this approach is used, however, it should be made clear that the guidelines are intended as basic guidelines designed mainly to promote the health and functioning of animals. In cultures that place a high priority on animal welfare, the development and implementation of guidelines that more closely address animal welfare objectives 2 and 3 would be appropriate to meet societal expectations.

Clarifying the underlying science

In the past, the development of animal welfare guidelines for production systems has sometimes been hampered by a lack of clarity over the scientific literature. In some cases organizations have attempted to create guidelines without a clear review or understanding of the science. In other cases, scientific reviews are available but these lead to conflicting conclusions. Guidelines that lack a clear and transparent link to science are often criticized as reflecting the subjective views or self-interest of those (animal producers, regulators or animal welfare organizations) that produce them.

In general, then, a good first step in developing animal welfare guidelines for a given production system is to ensure that a competent review of the relevant science is in place and widely accepted. If there is no such review, or if there are significant conflicts among existing reviews, then a new review may need to be created before beginning to develop a guideline.

Recommended next steps

Given the number of strategic decisions involved in the development of guidelines for terrestrial animal production systems, the Working Group on Animal Welfare recommends that the OIE proceed as follows.

Appendix LV (cond)

Appoint an *ad hoc* Group to consider the issues presented in this paper and prepare a Guidance Document on the development of animal welfare guidelines for terrestrial animal production systems. The *ad hoc* Group should, at a minimum, consider and report on the following:

- the various objectives of animal welfare guidelines, how these relate to animal health, and the role that the objectives should play in OIE guidelines;
- the advantages and disadvantages of animal-based versus design-based criteria, with examples and recommendations on how these different criteria should be addressed in developing OIE guidelines;
- the role of science in animal welfare guidelines, with recommendations on how the OIE should proceed to ensure that guidelines are clearly and transparently based on relevant science;
- a proposed strategy, including whether to approach the development of guidelines based on species (e.g. chickens) or production systems (e.g. caged layers);
- recommendations on the composition of expert groups including the appropriate scientific expertise, regulatory experience and regional and cultural representation;
- priorities for development of guidelines (species, production systems).

This Guidance Document should be submitted to the Animal Welfare Working Group and, if endorsed, submitted to the OIE Code Commission and possible distribution to the OIE Delegates.

With the Guidance Document in place and endorsed by the International Committee, the OIE could proceed by appointing one or more *ad hoc* Groups to work on particular animal species or production systems. Such groups may begin with the creation of a comprehensive review of the literature where this is needed.

Appendix LVI (cond)

Original: English
January 2007

REPORT OF THE MEETING OF THE OIE *AD HOC* GROUP ON THE REVISION OF THE OIE MODEL CERTIFICATES
Paris, 9-11 January 2007

———

The OIE *ad hoc* Group on the Revision of the OIE Model Certificates (hereinafter referred to as the *ad hoc* Group) met at the OIE Headquarters from 9 to 11 January 2007.

The members of the *ad hoc* Group and other participants are listed at Appendix I; apologies were received from Dr Burroughs and Dr Makenali. The Agenda adopted is given at Appendix II.

On behalf of the Director General of the OIE, Dr Sarah Kahn, Head of the International Trade Department, welcomed all members and indicated that on request of Member Countries the OIE intends to revise the model certificates in the OIE *Terrestrial Animal Health Code* (hereinafter referred to as the *Terrestrial Code*). She introduced the terms of reference (see Appendix III) and explained that the first priority for this *ad hoc* Group was to update the current model certificates in the *Terrestrial Code* with a view to simplifying them so as to make them as useful as possible to Member Countries. In the time available, the OIE would also like the *ad hoc* Group to consider the issues associated with means of preventing fraud and the use of electronic certification systems. Dr Kahn asked the *ad hoc* Group to be mindful of the broad membership of the OIE (168 Member Countries as January 2007) and their various stages of infrastructure development.

Dr Kahn recalled the mandate of the OIE in animal production food safety and the need for continued good cooperation between the OIE and the Codex Alimentarius Commission (CAC) to address food safety issues related to the on-farm stage of food production. She mentioned that the revision of the certification principles by the Codex Committee on Food Import and Export Inspection and Certification Systems (CCFICS) should be considered by this *ad hoc* Group while revising the OIE model certificates. On this point she said that there were several similarities between the OIE and the CAC approach to certification for international trade. However, there may be some valid differences in relation to the different nature of the products (i.e. live animals/genetic material or transformed food products) that need to be addressed by the two organisations and that certificates will need to reflect these differences.

Appendix LVI (cond)

Dr Kahn reminded the *ad hoc* Group of the important OIE objective to improve the legal framework and resources of national Veterinary Services. To this end the OIE International Committee has approved international standards on the evaluation of Veterinary Services and the use of the PVS (Performance, Vision and Strategy) tool to assist national Veterinary Services in evaluating their current level of performance against OIE criteria. She considered the work of this *ad hoc* Group to be relevant to this part of the OIE activities, as the export health certification is one of the key duties of the national Veterinary Services and an important driver in seeking to improve capabilities. She encouraged the *ad hoc* Group to note this point especially in relation to the issue of fraud prevention. She introduced Dr Wolf-Arno Valder, Vice President of the OIE Terrestrial Animal Health Standards Commission, and proposed that he chair the *ad hoc* Group.

Dr Valder then took over as Chair of the meeting and presented the draft agenda and terms of reference. He acknowledged the importance of the work of the *ad hoc* Group and the need to consider the work already done by other international organisations (notably the CAC) and by Member Countries. He presented the existing texts related to the certification process and noted the significant number of model certificates presented in the *Terrestrial Code*.

Dr Tom Heilandt, Senior Food Standards Officer, CAC Secretariat, presented the work done by the CAC. He stated that the CAC already agreed on the need for the OIE and the CAC to coordinate their work to avoid gaps and duplications in the standard setting process. He explained the work accomplished in the recent CCFICS meeting, the Codex draft model certificate for milk and milk products and the Codex Model Certificate for Fish and Fishery Products. He highlighted the fact that this year, in July 2007, the CAC will decide on the adoption of the "proposed draft Guidelines for Generic Official Certificate Formats and the Design, Production, Issuance and Use of Certificates".

The *ad hoc* Group agreed on the need to simplify the current OIE model certificates presented in Part 4 of the *Terrestrial Code* and clarified that these constituted models and are not of a mandatory nature. The objective is to facilitate Member Countries' efforts to establish a basis for export of animals and their products, by providing standardised approaches to health certification. The members of the *ad hoc* Group also agreed that the existing text in the *Terrestrial Code* relating to the prevention of fraud in certification should be reviewed and updated.

The *ad hoc* Group noted that certification related to aquatic animals and their products is outside its scope. It suggested that, when the model certificates in the OIE *Aquatic Animal Health Code* are reviewed, harmonisation with the models and guidelines presented in the *Terrestrial Code* would be advisable.

In order to simplify the certification procedures that Member Countries are called upon to provide, bearing in mind that these vary for different commodities and different trading partners, the *ad hoc* Group agreed on the need to have a standardised structure for all model certificates. It underlined the importance of international recognition of the minimum information requirements that should be exchanged between trading partners. This approach would provide for an easier transition on the part of Member Countries wishing to implement electronic certification systems. The *ad hoc* Group agreed to follow, as appropriate, the approach taken by the CCFICS and recommended the use of the structure proposed by the United Nations Layout Key for Trade Documentation (Recommendation No. 1, ECE/TRADE/137). It noted that similar certificates are already in use in international trade.

To promote clearer communication among Member Countries, the *ad hoc* Group recommended, in line with the approach taken by the CAC, the use of ISO country codes and the identification of commodities using the code of the Harmonized System of the World Customs Organization.

The *ad hoc* Group stressed the importance of each Member Country clearly identifying the competent authority which is responsible for the issuance of certificates. In case of Veterinary Certificates, the Competent Authority will be the Veterinary Administration.

The *ad hoc* Group reviewed the existing model certificates in the *Terrestrial Code* and concluded that the level of detail present in the attestations in some model certificates should not be reflected in the new model certificates. Rather the details of zoosanitary attestations should be agreed between trading partners taking into account the relevant recommendations presented in the *Terrestrial Code* and inserted in Part II of the Veterinary Certificate.

Following these discussions, the *ad hoc* Group drafted four model Veterinary Certificates (Appendix IV to VII):

1. Model Veterinary Certificate for International Trade in Live Animals and Hatching Eggs
2. Model Veterinary Certificate for International Trade in Embryos, Ova and Semen
3. Model Veterinary Certificate for International Trade in Products of Animal Origin
4. Model Veterinary Certificate for International Trade in Bees and Brood Combs.

The *ad hoc* Group recommends that these draft model certificates should replace all model certificates currently presented in Part 4 of the *Terrestrial Code*.

To explain the usage of these models, the *ad hoc* Group prepared notes for guidance on the drafting and usage of Veterinary Certificates for inclusion in the *Terrestrial Code* with the models (see Appendix VIII).

The *ad hoc* Group reviewed the Proposed Draft Model Export Certificate for Milk and Milk Products developed by the Codex Committee on Milk and Milk Products (CCMMP). In relation to the identification of commodities, the *ad hoc* Group decided that it would be more appropriate to follow the approach used by the CCMMP and using the terms "lot identification/date code" in the model Veterinary Certificates since this would include the date of production of the animal product in the certificate.

The *ad hoc* Group noted that the contents of the OIE Model Veterinary Certificate for International Trade in Products of Animal Origin is compatible with the draft document being developed by the CCMMP, but it noted that the format of the two certificates differs. The *ad hoc* Group advised the best approach would be to follow the UN Layout Key for Trade Documentation, as seen in the draft OIE model certificates.

In regards to the certification of pasteurised dairy products, the *ad hoc* Group discussed the OIE Animal Production Food Safety Working Group's request to advise on whether a "sanitary certificate" would be more appropriate than a "veterinary certificate" in regards to these products. The *ad hoc* Group also discussed whether the attestation included in the Certificate should be described as an "attestation", a "sanitary attestation" or a "zoosanitary attestation". The *ad hoc* Group considered that as these certificates address aspects of animal health (including public health risks related to zoonoses), the term "zoosanitary attestation" should be used and veterinary certification is appropriate. The *ad hoc* Group clarified that this would not preclude Member Countries drawing up their national certificates based on the OIE or the Codex Alimentarius texts on this topic. Therefore, it would be up to Member Countries to decide the scope of the certificate and to name the certificate accordingly.

In relation to fraud prevention practices related to certification, the *ad hoc* Group acknowledged the recommendation made by the 22nd Conference of the OIE Regional Commission for Europe. The *ad hoc* Group considered that the use of electronic certification could help to reduce the likelihood of use of fraudulent certification. It noted that the current Chapter 1.2.2. in the *Terrestrial Code* already makes provisions on fraud reduction in certification procedures and that more detailed recommendations were unnecessary. However, it proposed to amend Article 1.2.1.4. in order to promote cooperation among Veterinary Administrations involved dealing with cases of fraudulent certification. The proposed amendments take into account the work of CCFICS and are shown at Appendix IX.

The *ad hoc* Group recommended that the OIE Terrestrial Animal Health Standards Commission seek ways to further develop international standards on electronic certification. This work should take into account the recommendations of the United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT). The *ad hoc* Group considered that promoting international agreement on systems for electronic data exchange could help to prevent fraud, facilitate inspection procedures at national border posts and improve tracing operations. The *ad hoc* Group acknowledged that such work would need to be done keeping in mind the needs and capabilities of developing countries.

.../Appendices

Appendix I

MEETING OF THE OIE *AD HOC* GROUP ON THE REVISION OF THE OIE MODEL CERTIFICATES

Paris, 9-11 January 2007

List of participants

MEMBERS OF THE *AD HOC* GROUP

Dr Wolf-Arno Valder (Chair)
Vice President of the OIE Terrestrial Animal Health Standards Commission
Graue-Burg-Str 79
D-53332 Bornheim
GERMANY
Tel.: (49-2 227) 58 50
E-mail: wolf-arno.valder@freenet.de

Dr Allen Bryce
Senior Principal Research Scientist
Office of the Chief Veterinary Officer
Department of Agriculture, Fisheries & Forestry
AUSTRALIA
Tel.: (61-2) 6272 4509
E-mail: allen.bryce@daff.gov.au

Dr Richard Burroughs (absent)
State Veterinarian
Import Export Policy Unit
Directorate of Animal Health
Department of Agricultura
REPUBLIC OF SOUTH AFRICA
Tel.: (27) 12319 7420
Email: RichardBu@nda.agric.za

Dr Didier Carton
Principal Administrator
SANCO
European Commission
Rue Belliard 232/ 3-71
B-1040 Brussels
BELGIUM
Tel.: (32-2) 295 1804
E-mail: didier.carton@ec.europa.eu

Dr Bruno Cotta
Fiscal Federal Agropecuário
Chefe da Divisão de Trãnsito Nacional
CTQA/DSA/SDA
Ministerio da Agricultura, Pecuária e Abastecimiento
Esplanada dos Ministerios, blocoD
CEP 70043 900
BRAZIL
Tel.: (55- 61) 3218 2103
E-mail: brunocotta@agricultura.gov.br

Dr Tom Heilandt
Senior Food Standards Officer
Codex Alimentarius Commission
Joint FAO/WHO Food Standards Programme
FAO, Viale delle Terme de Caracalla - 00153 Rome
ITALY
Tel.: (39-06) 570 54384
Fax: (39-06) 570 54593
E-mail: Tom.Heilandt@fao.org

Dr Alisafar Makenali (absent)
Head of International Affairs
Iran Veterinary Organization (IVO)
P.O. Box 14155/6349
IRAN
Tel.: (98-21) 895 7193
E-mail: makenali@gmail.com

Appendix LVI (cond)

Appendix I (contd)

OIE HEADQUARTERS

Dr Bernard Vallat
Director General
OIE
12, rue de Prony
75017 Paris
FRANCE
Tel.: 33 (0)1 44.15.18.88
Fax: 33 (0)1 42.67.09.87
E-mail: oie@oie.int

Dr Sarah Kahn
Head
International Trade Department
OIE
Tel.: 33 (0)1 44.15.18.80
Fax: 33 (0)1 42.67.09.87
E-mail: s.kahn@oie.int

Dr Willem Droppers
Chargé de mission
International Trade Department
OIE
Tel.: 33 (0)1 44.15.19.68
Fax: 33 (0)1 42.67.09.87
E-mail: w.droppers@oie.int

Dr Francesco Berlingieri
Deputy Head
International Trade Department
OIE
Tel.: 33 (0)1 44.15.18.88
Fax: 33 (0)1 42.67.09.87
E-mail: f.berlingieri@oie.int

Appendix LVI (cond)

Appendix II

MEETING OF THE OIE *AD HOC* GROUP ON THE REVISION OF THE OIE MODEL CERTIFICATES

Paris, 9 - 11 January 2007

_____

Provisional agenda

1. Adoption of the agenda

2. Introduction

a) Report on OIE activities, including the 22nd Conference of the OIE Regional Commission for Europe

b) Relevant work in the Codex Alimentarius Commission

3. Model certificates

a) Live animals

b) Genetic material

c) Animal products

d) Other issues

i) Electronic certification

ii) Avoiding fraud in certification

4. Conclusions

_____

Appendix LVI (cond)

Appendix III

TERMS OF REFERENCE FOR THE OIE *AD HOC* GROUP ON THE REVISION OF THE OIE MODEL CERTIFICATES

1. Simplify the certification process by drafting templates with identical headings (information on exporting country, responsible person, identification of the commodity, address of the consignee, etc.), for all model certificates and prepare different attestations as appropriate to the commodity addressed.

2. Address certificates for live animals identified individually and for animals identified in groups.

3. Address products of animal origin that are not already covered (e.g. products for museums, hides and skins, feathers).

4. Address milk certificates considering the ongoing work in the Codex Committee on Milk and Milk Products.

5. Provide for linkages between livestock and commodity certificates.

6. Produce harmonised certificates taking into account different requirements for the various species and commodities.

7. Consider the recommendations of the Animal Production Food Safety Working Group (endorsed by the OIE Terrestrial Animal Health Standards Commission).

8. If possible, take an approach that is consistent with that of the Codex Alimentarius Commission (notably Codex Committee on Food Import and Export Inspection and Certification Systems).

9. Ensure compatibility with electronic certification systems.

10. Make recommendations on the use of new technologies on security for avoiding fraud in certification.

Appendix LVI (cond)

Appendix IV

Model Veterinary Certificate for International Trade in Live Animals and Hatching Eggs

COUNTRY:

Part I: Details of dispatched consignment

I.1. Consignor
Name

Address

I.2. Certificate reference number

I.3. Veterinary Administration

I.4. Veterinary Authority

I.5. Consignee
Name

Address

I.6.Country of origin ISO code

I.7. Zone or compartment of origin

I.8. Country of destination ISO code

I.9. Zone or compartment of destination

I.10. Place of origin

Name

Address

I.11. Place of shipment
Address

I.12. Date of departure

I.13. Means of transport
Aeroplane ☐ Ship ☐ Railway wagon ☐
Road vehicle ☐ Other ☐
Identification:

I.14. Expected border post

I.15. CITES permit No(s).

I.16. Description of commodity

I.17. Commodity code (HS code)

I.18.Quantity

I.19.

I.20. Number of packages

I.21. Identification of container/seal number

I.22.

I.23. Commodities intended for use as:
Breeding/rearing ☐ Competition ☐ Slaughter ☐ Game restocking ☐
Pets ☐ Circus/exhibition ☐ Other ☐

I.24. For import or admission
Definitive import ☐ Re-entry ☐ Temporary admission ☐

I.25. Identification of the commodities

Species (Scientific name) Breed / Category Identification system Identification number/details

Age Sex Quantity

Appendix LVI (cond)

Appendix IV (contd)

COUNTRY:

Part II: Zoosanitary information

II.a. Certificate reference number

II. The undersigned Official Veterinarian certifies that the animal(s)/hatching eggs described above satisfy(ies) the following requirements:

Official Veterinarian

Name and address (in capital letters):

Qualification and title

Date:

Signature:

Stamp

Appendix LVI (cond)

Appendix V

Model Veterinary Certificate for International Trade in Embryos, Ova and Semen

COUNTRY:

Part I: Details of dispatched consignment

I.1. Consignor
Name

Address

I.2. Certificate reference number

I.3. Veterinary Administration

I.4. Veterinary Authority

I.5. Consignee
Name

Address

I.6.Country of origin ISO code I.7. Zone or compartment of origin

I.8. Country of destination ISO code I.9. Zone or compartment of destination

I.10. Place of origin

Name

Address

I.11. Place of shipment
Address

I.12. Date of departure

I.13. Means of transport
Aeroplane ☐ Ship ☐ Railway wagon ☐
Road vehicle ☐ Other ☐
Identification:

I.14. Expected border post

I.15. CITES permit No(s).

I.16. Description of commodity

I.17. Commodity code (HS code)

I.18.Quantity

I.19.

I.20. Number of packages

I.21. Identification of container/seal number

I.22.

I.23. Commodities intended for use as:
Artificial reproduction ☐ Other ☐

I.24.

I.25. Identification of the commodities

Species (Scientific name) Breed/ Category Donor identity Date of collection

Approval number of the centre/team Identification mark Quantity

Appendix LVI (cond)

Appendix V (contd)

COUNTRY:

Part II: Zoosanitary information

II.a. Certificate reference number

II. The undersigned Official Veterinarian certifies that the embryos/ova/semen described above satisfy(ies) the following requirements:

Official Veterinarian

Name and address (in capital letters):

Qualification and title

Date:

Signature:

Stamp

Appendix LVI (cond)

Appendix VI

Model Veterinary Certificate for International Trade in Products of Animal Origin

COUNTRY:

Part I: Details of dispatched consignment

I.1. Consignor
Name

Address

I.2. Certificate reference number

I.3. Veterinary Administration

I.4. Veterinary Authority

I.5. Consignee
Name

Address

I.6.Country of origin ISO code

I.7. Zone or compartment of origin

I.8. Country of destination ISO code

I.9. Zone or compartment of destination

I.10. Place of origin

Name

Address

I.11. Place of shipment
Address

I.12. Date of departure

I.13. Means of transport
Aeroplane ☐ Ship ☐ Railway wagon ☐
Road vehicle ☐ Other ☐
Identification:

I.14. Expected border post

I.15. CITES permit No(s).

I.16. Description of commodity

I.17. Commodity code (HS code)

I.18.Quantity

I.19. Temperature of product
Ambient ☐ Chilled ☐ Frozen ☐

I.20. Number of packages

I.21. Identification of container/seal number

I.22.Type of packaging

I.23. Commodities intended for use as:
Human consumption ☐ Animal feed ☐ Further processing ☐ Technical use ☐
Other ☐

I.24.

I.25. Identification of the commodities

Species (Scientific name) Nature of commodity Treatment type

Approval number of establishments
Abattoir Cutting plant/ Processing plant Cold store/

Number of packages Net weight Lot identification/date code

Appendix LVI (cond)

Appendix VI (contd)

COUNTRY:

Part II: Zoosanitary information

II.a. Certificate reference number

II. The undersigned Official Veterinarian certifies that the product(s) of animal origin described above satisfy(ies) the following requirements:

Official Veterinarian

Name and address (in capital letters):

Qualification and title

Date:

Signature:

Stamp

Appendix LVI (cond)

Appendix VII

Model Veterinary Certificate for International Trade in Bees and Brood Combs

COUNTRY:

Part I: Details of dispatched consignment

I.1. Consignor Name Address		I.2. Certificate reference number I.3. Veterinary Administration I.4. Veterinary Authority
I.5. Consignee Name Address		
I.6.Country of origin	ISO code	I.7. Zone or compartment of origin
I.8. Country of destination	ISO code	I.9. Zone or compartment of destination
I.10. Place of origin Name Address		
I.11. Place of shipment Address		I.12. Date of departure
I.13. Means of transport Aeroplane ☐ Ship ☐ Railway wagon ☐ Road vehicle ☐ Other ☐ Identification:		I.14. Expected border post I.15. CITES permit No(s).
I.16. Description of commodity		I.17. Commodity code (HS code) I.18.Quantity
I.19.		I.20. Number of packages
I.21. Identification of container/seal number		I.22.
I.23. Commodities intended for use as: Breeding/rearing ☐ Other ☐		
I.24.		

I.25. Identification of the commodities

Category	Breed / Variety	Quantity	Identification details

Appendix LVI (cond)

Appendix VII (contd)

COUNTRY:

Part II: Zoosanitary information

II.a. Certificate reference number

II. The undersigned Official Veterinarian certifies that the bees/brood comb(s) described above satisfy(ies) the following requirements:

Official Veterinarian

Name and address (in capital letters):

Qualification and title

Date:

Signature:

Stamp

Appendix LVI (cond)

Appendix VIII

NOTES FOR GUIDANCE ON THE VETERINARY CERTIFICATES FOR INTERNATIONAL TRADE IN LIVE ANIMALS, HATCHING EGGS AND PRODUCTS OF ANIMAL ORIGIN

General: Please complete the certificate in capitals. To confirm an option, mark the box with a cross (X).

PART I. DETAILS OF DISPATCHED CONSIGNMENT

Country: Name of the country that issues the certificate.

Box I.1. Name and full address of the natural or legal person dispatching the consignment. Information on telephone and fax numbers or e-mail address is recommended.

Box I.2. The certificate reference number is the number used by the Veterinary Authority of the country to identify the certificate.

Box I.3. Name of the *Veterinary Administration*.

Box I.4. Name of the *Veterinary Authority*.

Box I.5. Name and full address of the natural or legal person to whom the consignment is destined.

Box I.6. Name of the country from which the *animals*, *hatching eggs*, embryos, semen, ova or brood combs are being exported. For products, name the country(ies) where the finished products were produced, manufactured or packed.

"ISO code" refers to the international standard two-letter code (ISO 3166-1 Alpha-2 Code) for a country produced by the International Organization for Standardization.

Box I.7. Name of the zone or compartment of origin, if relevant, in part II of the certificate.

Box I.8. Name of the country of destination.

"ISO code" refers to the international standard two-letter code (ISO 3166-1 Alpha-2 Code) for a country produced by the Intemational Organization for Standardization.

Box I.9. Name of the zone or compartment of destination, if relevant, in part II of the certificate.

Box I.10. Name and full address of the place(s) from which the *animals* or products are being exported; and official approval or registration number when required.

For *animals* and *hatching eggs*: the *establishment(s)*, wildlife or hunting reserves.

For semen: the *artificial insemination centre*.

For embryos and ova: the name, address and official approval number of the collection team (not the premises of storage).

For products of animal origin: the premises from which the products are to be dispatched.

Box I.11. Name and full address of the place from which the *animals* or products are being shipped (this will be a land, sea or airport).

Box I.12. Date of departure. For *animals* include the expected time of departure.

Appendix LVI (cond)

Appendix VIII (contd)

Box I.13. Details of the means of transport.

Identification of the means of transport: for air transport, the flight number; for maritime transport, the name of the vessel; for rail transport, the number of the train and the wagon and for road transport, the registration number of the road vehicle and the number of the trailer where used.

Box I.14. Name of expected *border post* and, if available, its UN/LOCODE (refer to the United Nations Code for Trade and Transport Locations).

Box I.15. CITES permit number(s) if the *commodity* concerns species listed in the Washington Convention.

Box I.16. Describe the *commodity* or use the titles as they appear in the Harmonised System of the World Customs Organization.

Box I.17. Heading or HS Code of the Harmonized System set up by the World Customs Organization.

Box I.18. Quantity of the *commodity*.

For *animals*, *hatching eggs* and animal products (semen, ova, embryos) give the total count of *animals*, eggs or straws.

For products give the gross weight and the net weight in kg of the whole consignment.

Box I.19. Temperature of products for transport and storage.

Box I.20. Number of boxes, cages or stalls in which the *animals* or *hatching eggs* are being transported. Number of cryogenic containers for semen, ova, embryos. Number of packages for products.

Box I.21. Identify the containers/seal numbers where required.

Box I.22. Identify the type of packaging of products (e.g. cans, boxes).

Box I.23. Intended use of the imported *animals* or products.

Breeding/rearing: applies to *animal for breeding or rearing* and *hatching eggs*.

Slaughter: applies to *animal for slaughter*.

Game restocking: applies to game for the purpose of rebuilding stocks.

Pet: applies to *animals* kept for companionship or enjoyment. This excludes livestock species.

Circus/exhibition: applies to *animals* used in a circus, show or exhibition.

Human consumption: applies to products intended for human consumption.

Animal feed: means any product of animal origin (single or multiple), whether processed, semi-processed or raw, which is intended to be fed to *animals*.

Further processing: applies to products of animal origin which have to be further processed before being suitable for end use.

Technical use: applies to products not intended for human or animal consumption. These include animal products that are intended for use in the pharmaceutical, medical, cosmetic and other industries. Such products may be subjected to extensive further processing.

Other: intended for purposes not listed elsewhere in this classification.

Box I.24. Mark, if appropriate.

Box I.25. Details on the nature of the *commodity* sufficient to identify it.

For *animals* and *hatching eggs*: Species (scientific name); Breed/Category; Identification system; Identification number or other identification details; Age; Sex; Quantity. For animals holding an official passport, the international animal passport number should be provided, and a copy of the details on the passport attached to the certificate.

For embryos, ova and semen: Species (Scientific name); Breed/Category; Identification mark according to the International Embryo Transfer Society (IETS) or the International Committee for Animal Recording (ICAR); Collection date; Approval number of the centre/team; Identification of the donor animal; Quantity.

For bees and brood combs: Category means hive with bees, swarm, consignment of bees (worker bees, drones), queen bees, brood-combs, royal cells, etc. Identification details include peculiarities (e.g. Marks or age or weight or surface).

For products of animal origin: Species (Scientific name); Nature of commodity; Treatment type; approval number of establishment(s) (e.g. dairy farm, abattoir; cutting plant; processing plant; cold store); Lot identification/date code; Quantity; Number of packages; Net weight.

PART II. ZOOSANITARY INFORMATION

Box II. Complete this part in accordance with the requirements agreed between the Veterinary Administrations of the importing and exporting countries in accordance with the recommendations in the *Terrestrial Code*.

Box II.a. Reference number: see box I.2.

Official veterinarian: Name, address, qualification and title, date of signature and official stamp of the *Veterinary Services*.

Appendix LVI (cond)

Appendix IX

CHAPTER 1.2.1.

GENERAL OBLIGATIONS

Article 1.2.1.1.

International trade in *animals* and animal products depends on a combination of factors which should be taken into account to ensure unimpeded trade, without incurring unacceptable risks to human and animal health.

Because of the likely variations in animal health situations, various options are offered by the *Terrestrial Code*. The animal health situation in the *exporting country*, in the *transit country* or *countries* and in the *importing country* should be considered before determining the requirements which have to be met for trade. To maximise harmonisation of the sanitary aspects of *international trade*, *Veterinary Administrations* of Member Countries should base their import requirements on the OIE standards, guidelines and recommendations.

These requirements should be included in the model certificates approved by the OIE which form Part 4 of the *Terrestrial Code*.

Certification requirements should be exact and concise, and should clearly convey the wishes of the *importing country*. For this purpose, prior consultation between *Veterinary Administrations* of *importing* and *exporting countries* is useful and may be necessary. It enables the setting out of the exact requirements so that the signing veterinarian can, if necessary, be given a note of guidance explaining the understanding between the *Veterinary Administrations* involved.

When Members of a *Veterinary Administration* wish to visit another country for matters of professional interest to the *Veterinary Administration* of the other country, the latter should be informed.

Article 1.2.1.2.

Responsibilities of the importing country

1. The import requirements included in the *international veterinary certificate* should assure that *commodities* introduced into the *importing country* comply with the national level of protection that it has chosen for animal and human health. *Importing countries* should restrict their requirements to those justified for such level of protection.

2. The *international veterinary certificate* should not include requirements for the exclusion of pathogens or animal *diseases* which are present within the territory of the *importing country* and are not subject to any *official control programme*. The requirements applying to pathogens or *diseases* subject to *official control programmes* in a country or *zone* should not provide a higher level of protection on imports than that provided for the same pathogens or *diseases* by the measures applied within that country or *zone*.

3. The *international veterinary certificate* should not include requirements for disease agents or *diseases* which are not OIE listed, unless the *importing country* has identified the disease agent as presenting a significant risk for that country, after conducting a scientifically based import risk analysis according to the guidelines in Section 1.3.

Appendix LVI (cond)

Appendix IX (contd)

4. The transmission by the *Veterinary Administration* of certificates or the communication of import requirements to persons other than the *Veterinary Administration* of another country, necessitates that copies of these documents are also sent to the *Veterinary Administration*. This important procedure avoids delays and difficulties which may arise between traders and *Veterinary Administrations* when the authenticity of the certificates or permits is not established.

This information is usually the responsibility of *Veterinary Administrations*. However, it can be the responsibility of *Veterinary Authorities* at the place of origin of the *animals* when it is agreed that the issue of certificates does not require the approval of the *Veterinary Administration*.

Article 1.2.1.3.

Responsibilities of the exporting country

1. An *exporting country* should be prepared to supply the following information to *importing countries* on request:

   a) information on the animal health situation and national animal health information systems to determine whether that country is free or has *free zones* of listed diseases, including the regulations and procedures in force to maintain its free status;

   b) regular and prompt information on the occurrence of transmissible *diseases*;

   c) details of the country's ability to apply measures to control and prevent the relevant *listed diseases*;

   d) information on the structure of the *Veterinary Services* and the authority which they exercise;

   e) technical information, particularly on biological tests and vaccines applied in all or part of the national territory.

2. *Veterinary Administrations* of *exporting countries* should:

   a) have official procedures for authorisation of certifying veterinarians, defining their functions and duties as well as conditions covering possible suspension and termination of the appointment;

   b) ensure that the relevant instructions and training are provided to certifying veterinarians;

   c) monitor the activities of the certifying veterinarians to verify their integrity and impartiality.

3. The Head of the *Veterinary Service* of the *exporting country* is ultimately accountable for veterinary certification used in *international trade*.

Article 1.2.1.4.

Responsibilities in case of an incident ~~occurring after~~ related to importation

1. *International trade* involves a continuing ethical responsibility. Therefore, if within the recognised *incubation periods* of the various diseases subsequent to an export taking place, the *Veterinary Administration* becomes aware of the appearance or reappearance of a *disease* which has been specifically included in the *international veterinary certificate*, there is an obligation for the Administration to notify the *importing country*, so that the imported stock may be inspected or tested and appropriate action be taken to limit the spread of the *disease* should it have been inadvertently introduced.

2. Equally, if a *disease* condition appears in imported stock within a time period after importation consistent with the recognised *incubation period* of the *disease*, the *Veterinary Administration* of the *exporting country* should be informed so as to enable an investigation to be made, since this may be the first available information on the occurrence of the *disease* in a previously free herd. The *Veterinary Administration* of the *importing country* should be informed of the result of the investigation since the source of infection may not be in the *exporting country*.

3. In case of suspicion, on reasonable grounds, that an official certificate may be fraudulent, the *Veterinary Administration* of the *importing country* and *exporting country* should conduct an investigation. Consideration should also be given to notifying any third country(ies) that may have been implicated. All associated consignments should be kept under official control, pending the outcome of the investigation. The *Veterinary Administrations* of all countries involved should fully cooperate with the investigation. If the certificate is found to be fraudulent, every effort should be made to identify those responsible so that appropriate action can be taken according to the relevant legislation.

Appendix LVII

Original: English
October 2006

REPORT OF THE MEETING OF THE OIE *AD HOC* GROUP ON ANIMAL FEEDING

Paris, 25-27 October 2006

———

The OIE *ad hoc* Group on Animal Feeding (hereinafter referred to as the *ad hoc* Group) met at the OIE Headquarters from 25 to 27 October 2006.

The members of the *ad hoc* Group and other participants are listed at Appendix I. The Agenda adopted is given at Appendix II.

On behalf of Dr Vallat, Director General of the OIE, Dr Sarah Kahn welcomed all members and indicated that on request of OIE Member Countries the OIE intends to develop guidelines to address animal and public health aspects of animal feeding. She recalled the good cooperation between the Codex Alimentarius Commission (CAC) and the OIE, and reminded the Group of its terms of reference, including the need to take into account relevant Codex texts, in particular the Code of Practice on Good Animal Feeding, and other Codex texts relevant to animal feeding. The broad membership of the Group will assist this. She explained that the Codex texts primarily address public health aspects of animal feeding and that the OIE guidelines should address animal health, zoonotic and trade issues to complete the guidance on animal feed.

Dr Kahn explained that OIE science-based standards referenced in the Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement) of the World Trade Organization (WTO). She said that this *ad hoc* Group should take a science-based approach to its work while considering the implications related to international trade. She reminded the *ad hoc* Group that, in keeping with OIE guidance on other topics, the *ad hoc* Group should develop guiding principles that can be used to meet animal health and food safety objectives rather than highly prescriptive systems design standards. She introduced Dr Stuart Slorach, former Chair of the CAC, and proposed that he chair the *ad hoc* Group.

Dr Slorach then took over as Chair of the meeting and presented the draft agenda and terms of reference (TOR). The TOR were proposed by the Animal Production Food Safety Working Group (APFSWG) and revised by the OIE Terrestrial Animal Health Standards Commission in its March 2006 meeting (see Appendix III). Dr Slorach noted that this would be a large task. He stressed the heterogeneity of OIE Member Countries and asked that the Group address the needs of developing countries as it conducts its work.

Appendix LVII (cond)

Dr Annamaria Bruno, Food Standards Officer of the Joint FAO/WHO Food Standards Programme, presented the work done by the CAC. During an expert consultation held in 1997, it was recommended that the CAC consider for adoption a draft Code of Practice on Good Animal Feeding. The CAC established an *ad hoc* task force to further develop the Code of Practice which was adopted by the CAC in 2004. In 2006 the CAC decided to defer any decision on carrying out further work on animal feeding until 2008. Dr Bruno presented the Code of Practice and explained that it concentrated on food safety aspects of animal feeding, rather than animal health or animal welfare. She also informed the *ad hoc* Group that the Food and Agriculture Organization of the United Nations (FAO) and the World Health Organization (WHO) are preparing to carry out an expert consultation on animal feed safety in the second part of 2007.

The *ad hoc* Group agreed a structure for OIE "Guidelines for the Control of Hazards of Animal Health and Public Health Importance in Animal Feed" and general principles including an introduction, purpose, scope, and definitions (see Appendix IV). This draft provides a set of overarching principles for consideration of the APFSWG. Based on feedback from the APFSWG, the *ad hoc* Group would then proceed to develop more specific recommendations.

In drafting these guidelines, the *ad hoc* Group considered several publications and other source materials, which are listed at Appendix V.

The *ad hoc* Group decided to seek guidance from the APFSWG on the following points:

1. In view of Resolution No. XXII of the 74th General Session, the *ad hoc* Group requested clarification on whether it should restrict its consideration to zoonoses and animal feed, or deal with food safety and animal health issues more generally.

2. Should the guidelines address the issue of chemical hazards (e.g. residues of veterinary drugs and pesticides, contaminants and additives). If so, should the *ad hoc* Group address the issue of substances used in feed for non-therapeutic purposes (e.g. to promote growth)?

3. Should the guidelines address consumer concerns such as religious dietary requirements and production systems (e.g. organic farming)?

4. Should the guidelines address animal welfare (e.g. the obligation of producers to ensure that livestock are provided with adequate feed as appropriate to their nutritional needs?

5. Should the guidelines address the issue of genetically modified organisms (plant, animal) in feed?

6. Should the issue of intentional contamination of animal feed (e.g. bioterrorism) be addressed?

With regard to the requirement 'to review published scientific information', the *ad hoc* Group noted that a comprehensive review of published scientific literature is beyond the capacity of the group in the period available. However, members of the *ad hoc* Group will bring to each others' attention key publications and reports that are relevant to this work.

Next steps: The *ad hoc* Group would need to conduct an electronic consultation and a further meeting in order to finalise the development of specific guidelines on the management of hazards in feed production, storage, distribution and use, including on-farm production and use of animal feed. It requested that the APFSWG support the conduct of this work.

.../Appendices

Appendix LVII (cond)

Appendix I

MEETING OF THE OIE *AD HOC* GROUP ON ANIMAL FEEDING

Paris, 25-27 October 2006

_____

List of participants

MEMBERS OF THE *AD HOC* GROUP

Dr Stuart Slorach (Chair)
Chairman, OIE Animal Production Food Safety Working Group
Stubbängsvägen 9A
SE-12553
ÄLVSJÖ
SWEDEN
Tel.: (46) 8646.9597
Fax: (46) 8646.9597
E-mail: stuart.slorach@gmail.com

Dr Annamaria Bruno
Food Standards Officer
Food and Nutrition Division
Joint FAO/WHO Food Standards Programme
Vialle delle Terme di Caracalla
00153 Rome
ITALY
Tel.: (39) 06 570-56254
Fax: (39) 06 570-54593
E-mail: Annamaria.Bruno@fao.org

Dr Paula J. Fedorka Cray
Research Leader
Bacterial Epidemiology and Antimicrobial Resistance Research Unit
USDA-ARS-RRC
950 Collegue Station Rd
Athens, Ga 30605-2720
UNITED STATES OF AMERICA
Tel.: (706)546.3685
Fax: (706)546.3066
E-mail: pcray@saa.ars.usda.gov

Mr Miguel Granero Rosell
Principal Administrator
SANCO D2 - animal welfare and feed
European Commission
Rue de la Loi 200
1049 Brussels
BELGIUM
Tel.: 32 (2) 29 58110
Fax: 32(2) 29 63615
E-mail: miguel-angel.granero-rosell@ec.europa.eu

Mr Alain Guyonvarch
Director R&D
EVIALIS SA
Talhouët
56000 Vannes Cedex
FRANCE
Tel.: 33 (0)2 97 48 54 54.
Fax: 33 (0)2 97 48 54 00
E-mail: aguyonvarch@evialis.evls.net

Dr Fernanda Marcussi Tucci
Department Of Livestock Input Inspection
Secretary of Animal and Plant Health
Ministry of Agriculture, Livestock and Food Supply
Ministério da Agricultura
Esplanada dos Ministérios, Bloco D, Sala 441A
Brasília-DF CEP: 70043-900
BRAZIL
Tel.: (61) 3218.2720
Fax: (61) 3218.2727
E-mail: fernandam@agricultura.gov.br

Dr Aruni Tiskumara
Registrar of Animal Feeds
Dept. of Animal Production and Health
P O Box 13
Peradeniya
SRI LANKA
Tel.: 94(0) 81238.9486
94(0) 81238.9486
Fax: 94(0) 81238.8619
E-mail: dgaphamara@sltnet.lk

Appendix LVII (cond)

Appendix I (contd)

OIE HEADQUARTERS

Dr Bernard Vallat
Director General
12, rue de Prony
75017 Paris
FRANCE
Tel.: 33 (0)1 44 15 18 88
Fax: 33 (0)1 42 67 09 87
E-mail: oie@oie.int

Dr Sarah Kahn
Head
International Trade Department
OIE
Tel.: 33 (0)1 44.15.18.88
Fax: 33 (0)1 42.67.09.87
E-mail: s.kahn@oie.int

Dr Francesco Berlingieri
Deputy Head
International Trade Department
OIE
Tel.: 33 (0)1 44.15.18.88
Fax: 33 (0)1 42.67.09.87
E-mail: f.berlingieri@oie.int

Appendix LVII (cond)

Appendix II

MEETING OF THE OIE *AD HOC* GROUP ON ANIMAL FEEDING

Paris, 25-27 October 2006

_____

Adopted Agenda

1. Adoption of the Agenda

2. Review of published scientific information

3. Draft guideline for the OIE *Terrestrial Animal Health Code* on:

a) Feed production

b) Feed storage

c) Feed distribution

d) Animal feeding.

4. Other business

Appendix LVII (cond)

Appendix III

TERMS OF REFERENCE FOR THE OIE *AD HOC* GROUP ON ANIMAL FEEDING

(Proposed by the Animal Production Food Safety Working Group and revised by the OIE Terrestrial Animal Health Standards Commission in its March 2006 meeting)

1. Review the published scientific information on animal diseases, zoonoses and other public health hazards transmissible through animal feed of significance for international trade.

2. Using the above scientific evidence, draft guideline on the management of the identified hazards during:

   a) Feed production

   b) Feed storage

   c) Feed distribution

   d) Animal feeding.

   In doing so, take into account and reference the existing Codex Recommended Code of Practice on Good Animal Feeding and the relevant OIE *Terrestrial Animal Health Code* Chapters.

1. Provide a rationale for outcomes reached.

Appendix LVII (cond)

Appendix IV

GUIDELINES FOR THE CONTROL OF HAZARDS OF ANIMAL HEALTH AND PUBLIC HEALTH IMPORTANCE IN ANIMAL FEED

PART 1

INTRODUCTION

Animal feed is a critical component of the food chain that has a direct impact on animal health and welfare and also on food safety and public health.

Historically, the OIE primarily addressed animal feed as an important pathway for the entry and spread of contagious epidemic diseases, such as foot and mouth disease, swine vesicular disease and avian influenza. In recent years the role of feed as a vector for disease agents, including zoonotic organisms, was a focus of standards development in regards to bovine spongiform encephalopathy. Animal feed and feed ingredients are widely traded internationally and trade disruptions have the potential to impact economies in both developed and developing countries. Since 2002 the OIE has expanded its zoonotic disease mandate to encompass animal production food safety, working in collaboration with the Codex Alimentarius Commission (CAC) and other international organisations. In 2006 the International Committee resolved that the OIE should develop guidance on foodborne zoonoses and animal feeding, complementing relevant CAC texts.

PURPOSE

The purpose of this OIE guideline is to provide guidance on animal feeding in relation to animal health and to complement the guidance provided by the Codex Code of Practice on Good Animal Feeding (CAC/RCP 54-2004) which deals primarily with food safety.

This guideline aims at ensuring the control of animal and public health hazards through adherence to recommended practices during the production (procurement, handling, storage, processing and distribution) and use of both commercial and on farm produced animal feed and feed ingredients for food producing animals.

SCOPE

This guideline applies to the production and use of all products destined for animal feed and feed ingredients at all levels whether produced commercially or on farm. It also includes grazing or free-range feeding, forage crop production and water for drinking. Swill feeding is a particular aspect of on-farm practice that is specifically addressed because of its recognised role in disease transmission.

This guideline deals with feed for food producing animals other than aquatic animals (i.e. livestock and poultry).

DEFINITIONS

Hazard

means a biological, chemical or physical agent in, or a condition of, feed or a feed ingredient with the potential to cause an adverse effect on animal or public health.

Feed

means any material (single or multiple), whether processed, semi-processed or raw, which is intended to be fed directly to food producing animals.

Feed additives

means any intentionally added ingredient not normally consumed as feed by itself, whether or not it has nutritional value, which affects the characteristics of feed or animal products. Microorganisms, enzymes, acidity regulators, trace elements, vitamins and other products fall within the scope of this definition depending on the purpose of use and method of administration. This excludes veterinary drugs.

Appendix LVII (cond)

Appendix IV (contd)

Medicated feed
: means any feed which contains a veterinary drug administered to food producing animals, for therapeutic or prophylactic purposes or for modification of physiological functions.

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, animal or aquatic origin, or other organic or inorganic substances.

Undesirable substance
: means a contaminant or other substance which is present in and/or on feed and feed ingredients and which constitute a risk to animal or public health.

Commercial feed
: means all materials that are sold and distributed as feed, or to be mixed with feed, for animals except: unmixed seed, whole, processed, or unprocessed; straw, stover, silage, cobs, husks, and hulls; or individual chemical compounds not mixed with other ingredients.

Cross-contamination
: means contamination of a material or product with another material or product containing a component that is potentially harmful for animal or public health or restricted under the regulatory framework.

GENERAL PRINCIPLES

Roles and responsibilities

The Competent Authority has the legal power to set and enforce regulatory animal feeding requirements, and has final responsibility for verifying that these requirements are met. The Competent Authority may establish regulatory requirements for relevant parties to provide it with information and assistance. Refer to Chapters 1.3.3. and 1.3.4. of the OIE *Terrestrial Code*.

Those involved in the production and use of animal feed and feed ingredients have the responsibility to ensure that these products meet regulatory requirements. All personnel involved in the manufacture, storage and handling of feed and feed ingredients should be adequately trained and aware of their role and responsibility in preventing the spread of animal health and public health hazards. Appropriate contingency plans should be developed. Equipment should be maintained in good working order and in a sanitary condition.

It is a particular responsibility of Veterinary Services to set and enforce the regulatory requirements pertaining to the use of veterinary drugs, animal disease control and the food safety aspects that relate to the management of live animals on farm.

Those providing specialist services to producers and to the feed industry (e.g. private veterinarians and laboratories) may be required to meet specific regulatory requirements pertaining to the services they provide (e.g. disease reporting, quality standards, transparency).

Good practices

Where national guidelines exist, good agricultural practices and good manufacturing practices (including good hygienic practices) should be followed. Countries without such guidelines are encouraged to develop them.

Where appropriate, Hazard Analysis and Critical Control Point [8] (HACCP) principles should be followed to control hazards that may occur in feed.

[8] Hazard Analysis and Critical Control Point, as defined in the Annex to the Recommended International Code of Practice on General Principles of Food Hygiene (CAC/RCP 1-1969)

Geographic and environmental considerations

Land and facilities used for production of animal feed and feed ingredients and water sources should not be located in close proximity to sources of hazards for animal health or food safety. Animal health considerations include factors such as disease status, location of quarantined premises and existence of zones/compartments of specified health status. Food safety considerations include factors such as industrial operations that generate pollutants and waste treatment plants.

Zoning and compartmentalisation

Feed is an important component of biosecurity and needs to be considered when defining a compartment or zone in accordance with Chapter 1.3.5. of the OIE *Terrestrial Code*.

Sampling and analysis

Sampling and analytical protocols should be based on scientifically recognized principles and procedures.

Labelling

Labelling should be clear and informative as to how the user should handle, store and use feed and feed ingredients and should comply with regulatory requirements. See Codex Code of practice on good animal feeding (CAC/RCP 54-2004).

Design and management of inspection programmes

In meeting animal and public health objectives prescribed in national legislation or required by importing countries, Competent Authorities contribute through the direct performance of some tasks or through the auditing of animal and public health activities conducted by other agencies or the private sector.

Feed and feed ingredients business operators and other relevant parts of industry should practice self-regulation to secure compliance with required standards for procurement, handling, storage, processing, distribution and use. Operators have the primary responsibility for implementing systems for process control. Where such systems are applied, the Competent Authority should verify that they achieve all regulatory requirements.

Assurance and certification

Competent Authorities are responsible for providing assurances domestically and to trading partners that regulatory requirements have been met. For international trade in animal product based feeds, Veterinary Services are required to provide international veterinary certificates.

Regulatory safety standards

All feed and feed ingredients should meet regulatory safety standards. In defining limits and tolerances for hazards, scientific evidence, including the sensitivity of analytical methods and on the characterisation of risks, should be taken into account.

Hazards associated with animal feed

Biological hazards

Biological hazards that may occur in feed and feed ingredients include agents such as bacteria, viruses, prions, fungi and parasites.

Chemical hazards

Chemical hazards that may occur in feed and feed ingredients include naturally occurring chemicals (such as mycotoxins and gossypol), industrial and environmental contaminants (such as dioxins and PCBs), residues of veterinary drugs and pesticides and also radionuclides.

Physical hazards

Physical hazards that may occur in feed and feed ingredients include foreign objects (such as pieces of glass, metal, plastic or wood).

Appendix LVII (cond)

Appendix IV (contd)

Cross-contamination

It is important to avoid cross-contamination during the manufacture, storage, distribution (including transport) and use of feed and feed ingredients and relevant provisions should be included in the regulatory framework. Scientific evidence, including the sensitivity of analytical methods and on the characterisation of risks, should be drawn upon in developing this framework.

Procedures, such as flushing, sequencing and physical clean-out, should be used to avoid cross-contamination between batches of feed or feed ingredients.

Risk analysis (risk assessment, risk management and risk communication)

Internationally accepted principles and practices on risk analysis (Section 1.3. of the OIE *Terrestrial Code* and relevant Codex texts) should be used in developing and applying the regulatory framework.

Application of a generic framework should provide a systematic and consistent process for managing all biosecurity risks, while recognising the different risk assessment methodologies used in animal and public health.

Genetically modified organisms

If at the national level, there are specific food safety or animal health regulations related to genetically modified organisms, these should be taken into account in relation to feed and feed ingredients as these products form an important part of the food chain.

Antimicrobial resistance

Concerning the use of antimicrobials in animal feed refer to Section 3.9. of the OIE *Terrestrial Code*.

Management of information

The Competent Authority should establish clear requirements for the provision of information by the private sector as this relates to regulatory requirements.

Records should be maintained in a readily accessible form regarding the production, distribution and use of feed and feed ingredients. These records are required to facilitate the prompt trace-back of feed and feed ingredients to the immediate previous source, and trace-forward to the next subsequent recipients, to address identified animal health or public health concerns.

Animal identification and *animal traceability* are tools for addressing animal health (including zoonoses), and food safety risks arising from animal feed (see Section 3.5. of the OIE *Terrestrial Code* and Section 4.3. of CAC/RCP 54-2004).

PART 2 [to be further developed]

Specific recommendations pertaining to:

Commercial feed production
- Feed production
- Feed distribution
- Feed storage
- Animal feeding.

On farm feed production
- Feed production
- Grazing
- Feed storage
- Animal feeding.

REFERENCES

OIE Texts relevant to Animal Feeding

- Animal production food safety challenges in global market. OIE *Scientific and Technical Review*, Vol. 25 (2), 2006.
- Sections of the OIE *Terrestrial Animal Health Code* (edition 2006):
  - CHAPTER 1.4.1. Animal health measures applicable before and at departure
  - CHAPTER 1.4.4. Animal health measures applicable on arrival
  - CHAPTER 2.2.9. Trichinellosis (*Trichinella spiralis*)
  - CHAPTER 2.2.10. Foot and mouth disease
  - CHAPTER 2.2.11. Vesicular stomatitis
  - CHAPTER 2.2.12. Rinderpest
  - CHAPTER 2.3.13. Bovine spongiform encephalopathy
  - CHAPTER 2.4.8. Scrapie
  - CHAPTER 2.4.9. Peste des petits ruminants
  - CHAPTER 2.6.3. Enterovirus encephalomyelitis (previously Teschen/Talfan disease)
  - CHAPTER 2.6.5. Swine vesicular disease
  - CHAPTER 2.6.6. African swine fever
  - CHAPTER 2.6.7. Classical swine fever
  - CHAPTER 2.7.2. Marek's disease
  - CHAPTER 2.7.12. Avian influenza
  - CHAPTER 2.7.13. Newcastle disease
  - APPENDIX 3.4.1. Hygiene and disease security procedures in poultry breeding flocks and hatcheries
  - APPENDIX 3.5.1. General principles (Identification and traceability of live animals)
  - APPENDIX 3.6.1. General recommendations on disinfection and disinsectisation
  - APPENDIX 3.6.2. Foot and mouth disease virus inactivation procedures
  - APPENDIX 3.6.3. Procedures for the reduction of infectivity of transmissible spongiform encephalopathy agents

Appendix LVII (cond)

Appendix V (contd)

- APPENDIX 3.6.4. Classical swine fever virus inactivation procedures
- APPENDIX 3.6.5. Guidelines for the inactivation of the avian influenza virus
- APPENDIX 3.8.4. Surveillance for bovine spongiform encephalopathy
- APPENDIX 3.8.5. Factors to consider in conducting the bovine spongiform encephalopathy risk assessment recommended in Chapter 2.3.13.
- APPENDIX 3.8.8. Guidelines for the surveillance of classical swine fever
- APPENDIX 3.9.1. Guidelines for the harmonisation of national antimicrobial resistance surveillance and monitoring programmes
- APPENDIX 3.9.2. Guidelines for the monitoring of the quantities of antimicrobials used in animal husbandry
- APPENDIX 3.9.3. Guidelines for the responsible and prudent use of antimicrobial agents in veterinary medicine
- APPENDIX 3.9.4. Risk assessment for antimicrobial resistance arising from the use of antimicrobials in animals
- APPENDIX 4.2.2. Model international veterinary certificate for products of animal origin destined for use in animal feeding, or for agricultural or industrial or pharmaceutical or surgical use

Codex Texts relevant to Animal Feeding

Standards

General Standard for the Labelling of Pre-packaged Foods (CAC/STAN 1-1985)

General Standard for Food Additives (CAC/STAN 192-1995)

General Standard for Contaminants and Toxins in Food (CAC/STAN 193-1995)

Codes of Practices

Code of Practice for the Reduction of Aflatoxin B1 in Raw Materials and Supplemental Feedingstuffs for Milk-Producing Animals (CAC/RCP 45-1997)

Code of Practice for the Prevention of Mycotoxin Contamination in Cereals (CAC/RCP 51-2003)

Code of Practice on Good Animal Feeling (CAC/RCP 54-2004)

Code of Hygienic Practice for Meat (CAC/RCP 58-2005)

Principles for Traceability/Product Tracing as a Tool within a Food Inspection and Certification System (CAC/RCP 60-2006)

Code of Practice to Minimise and Contain Antimicrobial Resistance (CAC/RCP 61-2005)

Code of Practice for the Prevention and Reduction of Dioxin and Dioxin-like PCB Contamination in Food and Feeds (CAC/RCP 62-2006)

Guidelines

Guidelines for the Establishment of a Regulatory Programme for Control of Veterinary Drug Residues in Foods (CAC/GL 16-1993)

Guidelines for the Production, Processing, Labelling and Marketing of Organically Produced Foods (CAC/GL 32-1999)

Methods of Sampling for Pesticide Residues for the Determination of Compliance with MRLs (CAC/GL 33-1999)

Analysis of Pesticide Residues: Guidelines on Good Laboratory Practice in Pesticide Residue Analysis (CAC/GL 40-1999)

MRLs

Maximum Residue Limits for Veterinary Drugs in Foods (CAC/MRL 2)

Maximum Residue Limits (MRL) for Pesticides (CAC/MRL 1)

Extraneous Maximum Residue Limits (EMRLs) (CAC/MRL 3)

Miscellaneous

Classification of food and animal feed (CAC/MISC 4)

OTHER REFERENCES

- American Feed Industry Association website: http://www.afia.org
- Animal feeding and food safety - FAO Food and Nutrition Paper N0 69 - FAO, 1998
- Assessing quality and safety of animal feeds - FAO Animal production and Health Paper No 160 - FAO, 2004. ftp://ftp.fao.org/docrep/fao/007/y5159e/y5159e00.pdf.
- Codes of good management practice (GMP) for the animal feed industry, with particular preference to proteins and protein by-products. Dr W. A. McIlmoyle. FAO presentation, Bangkok (Thailand), 29th April-3rd May 2002.
- Draft good practices for the animal feed industry-implementing the Codex Alimentarius' Code of practice on good animal feeding. IFIF/FAO. In preparation.
- EFSA's First Community Summary Report on Trends and Sources of Zoonoses, Zoonotic Agents and Antimicrobial resistance in the European Union in 2004. EFSA 2006.
- FDA Veterinary Feed Directive. FDA web site: http://www.fda.gov/cvm/vfd.html
- Feed Legislation. David R. Williams. HGM Publications, 2000.
- Good practices for the meat industry. FAO/Carrefour International Foundation, 2004.
- Guide to good dairy farming practice. IDF/FAO, 2004.

Appendix LVII (cond)

Appendix V (contd)

- Manual on the application of the HACCP system in mycotoxin prevention and control - FAO Food and Nutrition Paper N0 73 - FAO, 2001.

- Manual para prevenir la transmisión de la Encefalopatía Espongiforme Bovina a través de los piensos - FAO, 2004. http://www.fao.org/docrep/008/ae926s/ae926s00.htm

- Protein sources for the animal feed industry - FAO Animal production and Health Proceedings No 1 - FAO, 2004. ftp://ftp.fao.org/docrep/fao/007/y5019e/y5019e00.pdf

- Report of the FAO Expert Consultation on Animal Feeding and Food Safety (FAO Food and Nutrition Paper 69). FAO, Rome (Italy), 10 - 14 March 1997.

- Twenty second FAO regional conference for Europe. Porto, Portugal, 24-28 July 2000. Agenda Item 10.2 - food safety and quality as affected by animal feedstuff.

- Uso de antimicrobianos en animales de consumo, desarrollo de resistencias, su incidencia en salud publica - incidencia del desarrollo de resistencias en salud pública - Estudio FAO Producción y Sanidad Animal No 162 - FAO, 2004. ftp://ftp.fao.org/docrep/fao/007/y5468s/y5468s00.pdf

Appendix LVIII (cond)

Original: English
November 2006

REPORT OF THE SIXTH MEETING OF THE
OIE WORKING GROUP ON ANIMAL PRODUCTION FOOD SAFETY
Paris, 7–9 November 2006

The OIE Working Group on Animal Production Food Safety (hereinafter referred to as the Working Group) met for the sixth time at the OIE Headquarters from 7 to 9 November 2006.

The members of the Working Group and other participants are listed at Appendix A. The Agenda adopted is given at Appendix B. The report of the fifth meeting of the Working Group was adopted unchanged.

The Director General of the OIE, Dr B. Vallat, welcomed all the members on behalf of the 167 OIE Member Countries and congratulated the Chairmen and the other members of the Working Group for the excellent work accomplished. He stressed the importance of this Working Group in bridging the gap between animal health and public health by advising the OIE on how to improve its cooperation with the Food and Agriculture Organization of the United Nations (FAO), the World Health Organization (WHO) and the Codex Alimentarius Commission (CAC).

1. Update on OIE, Codex, FAO and WHO activities

Dr Alex Thiermann, the President of the OIE Terrestrial Animal Health Standards Commission (hereinafter referred to as the Terrestrial Code Commission), reported on the relevant progress made in the October 2006 meeting of the Terrestrial Code Commission:

- The revision of the definitions of veterinary services, veterinary authority, veterinary administration and competent authority and the consequent revision of the usage of these terms throughout the OIE *Terrestrial Animal Health Code* (hereinafter referred to as the *Terrestrial Code*) with the aim to simplify the use of these terms. This work was initiated at the request of the Working Group.

- With the intent to assist Member Countries in the evaluation of their national veterinary services, the OIE is developing the Performance, Vision and Strategy (PVS) instrument. The Terrestrial Code Commission discussed the future development of this instrument and next steps in the development of a Handbook and Indicators for conducting evaluations. The PVS Instrument, the Handbook and the Indicators will not form part of the *Terrestrial Code*. Rather, they will be published by the OIE as an official tool for use in the evaluation of veterinary services.

- In the continuous effort of clarifying the concepts of zoning and compartmentalisation, the Terrestrial Code Commission is preparing guidelines with examples of practical implementation in relation to avian influenza.

- The Chapter on paratuberculosis is under revision in collaboration with the OIE Biological Standards Commission and will provide updated guidelines on diagnostic tools.

Appendix LVIII (cond)

- The draft revised Chapter on bovine brucellosis will be addressed by an *ad hoc* Group, under the supervision of the OIE Scientific Commission for Animal Diseases (hereinafter referred to as the Scientific Commission), in relation to the Member Countries' comments received. One member of the Working Group could be invited to the *ad hoc* Group to provide an input on the public health issues.

- For the work on bovine spongiform encephalopathy (BSE), an expert prepared a supporting document that collects all the relevant scientific justifications for the current recommendations.

- The table on the inactivation time and temperatures for avian influenza has been updated.

- More details on the ongoing work on animal identification and traceability, ante-mortem and post-mortem meat inspection and the revision of model certificates are provided below under the relevant agenda items.

Dr Kazuaki Miyagishima, Secretary of the Codex Alimentarius Commission (CAC), provided a report on recent developments in CAC since the last meeting of the Working Group; he notably informed the other Members about:

- The 29th Session of the CAC, where the Principles for Traceability/Product Tracing as a Tool within a Food Import and Export Inspection and Certification System (with the addition of references to OIE and IPPC texts) were adopted, as well as the Principles and Guidelines for Imported Food Inspection based on Risk. The CAC decided to establish a Codex Task Force on Antimicrobial Resistance; its first session is foreseen in September/October 2007 (the terms of reference highlight the need for close cooperation with the OIE). The CAC agreed to defer any decision to resume work on animal feeding until 2008.

- The Codex Committee on Food Import and Export Inspection and Certification Systems (CCFICS) was discussing the Proposed draft Revision of the Guidelines for Generic Official Certificate Formats and the Production and Issuance of Certificates.

- The Codex Task Force on Foods Derived from Biotechnology will meet at the end of November 2006. An update on the OIE activities in this field would be welcomed. The task force will also consider a discussion paper on Safety Assessment of Foods Derived from Animals Exposed to Protection against Disease through Gene Therapy or Recombinant-DNA Vaccines, prepared by Kenya.

- The Codex Committee on Food Hygiene will meet in December 2006 and, among other issues, it will address the Draft Revision of the Code of Hygienic Practice for Eggs and Egg Products and the Proposed Draft Guidelines for the Validation of Food Hygiene Control Measures.

Dr Joseph Domenech, Chief of the Animal Health Service (AGAH) of Food and Agriculture Organization of the United Nations (FAO), presented an update on plans for FAO reforms, which will be discussed at the next Council Meeting in November 2006. Dr Domenech highlighted four main points of interest to the Working Group:

- The planned establishment of a new Division EMPRES (Emergency Prevention for animal and plant health) will not take place and the Divisions Animal Production and Health (AGA) and Plant Production and Health (AGP) will remain as they are with their capacity for a multidisciplinary holistic approach unchanged.

- The Food and Nutrition Division (AGN) has become part of the Agriculture, Biosecurity, Nutrition and Consumer Protection Department since January 2006, facilitating pursuance of a food chain approach within a single department, together with AGA and AGP.

- The creation of a Crisis Management Centre (CMC) under the direct authority of the Head of the Agriculture, Biosecurity, Nutrition and Consumer Protection Department. The CMC will comprise three parts: animal health (under the responsibility of the CVO and in collaboration with the OIE), plant health (under the responsibility of the Chief of the AGPP Service) and food safety (under the responsibility of the Chief of the AGNS Service).

- In this context of grouping the three different dimensions of the food chain including the CMC for emergency responses to crisis, the FAO is developing its transversal programmes for producer to consumer approach.

A summary of these activities will be presented during the next meeting of the Working Group.

Dr Jørgen Schlundt, Director of the Department of Food Safety, Zoonoses and Foodborne Diseases of WHO, informed the Working Group about the upcoming election of the new WHO Director General and said that an update will be provided at the next meeting of the Working Group.

2. Control of Hazards of Public Health and Animal Health Importance through Ante-Mortem and Post-Mortem Meat Inspection

The Working Group expressed its satisfaction with the adoption of Appendix 3.10.1. (Guidelines for the control of biological hazards of animal health and public health importance through ante-mortem and post-mortem meat inspection) of the *Terrestrial Code* in May 2006 and emphasised that this work was an excellent example of complementarity between the OIE and the Codex texts. It addressed the recommendation of the Terrestrial Code Commission by reviewing the comments of the Delegates of New Zealand and France (speaking on behalf of the European Community) raised during the 74th General Session. It agreed with both comments, notably the suggestion to involve other stakeholders to share responsibility throughout the food chain. It considered it useful to involve the agri-food private sector, but clarified that the final responsibility should lie under the relevant competent authorities and should be linked to the veterinary services.

The Working Group would welcome suggestions from the European Community to insert this concept in Appendix 3.10.1.

3. Role and functions of veterinary services in food safety throughout the food chain

The Director General expressed the view that the development of guidelines on the role and functions of veterinary services in relation to the food chain was necessary to provide guidance to Member Countries on how to address the continuum of the food chain from the farm to the final consumer. He explained that it is important that such texts do not give recommendations on how Member Countries should structure the national administrative organisation, since this pertains to their sovereign right, although there could be some specific recommendations for some particular circumstances.

The Working Group acknowledged that there were several successful examples of how national administrations rearranged their public health and animal health services in order to better address the hazards arising from the food chain. It made reference to a FAO report of the 19th session of the Committee on Agriculture (13-16 April 2005) on "FAO's Strategy for a Safe and Nutritious Food Supply" that also acknowledged that it was a sovereign right of Member Countries to set up the structures of their national systems according to their needs, constitutional and administrative arrangements.

The Working Group noted the ongoing work by the Terrestrial Code Commission on the revision of the current definitions of veterinary services, and competent authority and their use throughout the *Terrestrial Code* (see above). It considered that this clarification work would need to be reflected in the development of the guidelines on the role and functions of veterinary services in relation to the food chain. The Working Group also considered that it would be useful to start by defining the regulatory functions necessary to reach the objectives in animal production food safety at the national level and then provide guidance on how the veterinary services should contribute to reaching these objectives.

The Working Group recommended the development of a paper to clarify how the veterinary services should cooperate with other authorities in the food chain continuum to ensure the protection of both animal and public health without providing details on the organisation of national administrations; this paper should be developed in the framework of *Terrestrial Code* chapters on the Evaluation of Veterinary Services. The Working Group recommended an *ad hoc* Group be asked to draft such a document.

4. Guide to Good Farming Practices

The Working Group was informed of the exchange of correspondence between OIE and FAO on this matter to coordinate their work to further develop the document 'Guide to good farming practices' drafted by the Working Group. FAO will shortly nominate a focal point on this topic.

The Working Group looked forward to the further development of this document.

5. Animal Identification and Traceability

The Working Group complimented the *ad hoc* Group on Identification and Traceability of Live Animals for preparing the General Principles on Identification and Traceability of Live Animals that have been adopted in May 2006. It noted the two reports of the *ad hoc* Group (which met in February and July 2006) and highlighted the fact that it had provided, through electronic consultation, comments to both reports.

In addressing the comments made by the Terrestrial Code Commission at its October 2006 meeting, the Working Group noted the comments from Member Countries on the preliminary Guidelines for Animal Identification and Traceability. There were different opinions from Member Countries as to whether there should be more or less detail in these guidelines and what the final destination of this text would be. The Working Group requested the *ad hoc* Group to address these comments.

The Working Group considered that these guidelines should not be too prescriptive, since they had to be applicable to all Member Countries. At the same time, it was felt that in the absence of guidelines on this topic individual Member Countries might develop their own guidelines without consulting trading partners and thus give rise to trade issues. Therefore, OIE guidelines were seen as useful in providing a common reference for all (developing and developed) Member Countries.

In order to provide Member Countries with sufficient detailed information on good animal identification and traceability systems, the OIE should provide (outside the OIE international standards, e.g. on the OIE webpage) examples of how such systems have been implemented.

The Working Group proposed to clarify the wording of principle 9 to read as follows: "The equivalent outcomes **based on** performance criteria, rather than identical systems **based on** design criteria, should be the basis for comparison of animal identification systems and animal traceability."

The Working Group recommended that these guidelines be revised taking into account the views of the Terrestrial Code Commission and also:

a) Ensuring that principle 9 is taken into account; and that therefore performance criteria should be highlighted wherever possible. The Working Group noted that, in some places, the draft guidelines reflected the use of design criteria associated with current technologies and provision should be made for technological development.

b) Ensuring that principle 2 is taken into account; therefore, the animal identification and traceability system should be integrated in the food safety system for an optimal exchange of information.

The Working Group agreed with the opinion of the Terrestrial Code Commission that the guidelines were intended as an Appendix to the *Terrestrial Code* and that the guidelines would indeed set out principles and general approaches, rather than prescribing specific standards.

6. Animal Feed

The Working Group reviewed the report of the *ad hoc* Group on animal feeding and complimented it for its excellent work. It addressed the specific issues raised by the *ad hoc* Group as well as the draft Guidelines for the Control of Hazards of Animal Health and Public Health Importance in Animal Feed.

The Working Group considered that the *ad hoc* Group should address all animal health issues, including zoonoses, related to feed. This should be done in such a way as to avoid duplication with the work of Codex. The *ad hoc* Group should also include chemical hazards in its scope.

The issue of animal welfare should not be addressed because this topic is dealt with elsewhere.

Regarding the subjects related to religious concerns and growth promoters in animal feeding, these should not be addressed because they do not constitute a proven hazard to health within animal feeding and/or would most likely be covered under the Codex remit.

The Working Group agreed that genetically modified organisms (GMOs) are an important issue that should be mentioned in the general principles but that it is not within the OIE mandate to pursue any further work in relation to GMOs in animal feed.

The guidelines should address all elements relevant to prevention and detection of contamination (early detection, rapid notification, control systems) which are essential in dealing with natural, accidental and intentional contamination events, in a holistic manner.

The Working Group recommended that the text on Hazard Analysis and Critical Control Point principles be strengthened as these principles are widely used in commercial feed production.

The Working Group made minor modifications to the principles proposed by the *ad hoc* Group as shown in Appendix C and recommended this text be submitted to the Terrestrial Code Commission with a view to circulating it to Member Countries for comments.

The Working Group recommended that an *ad hoc* Group on Animal Feeding be convened to continue this work after receiving a feedback from Member Countries.

7. Revision of OIE model certificates

The Working Group addressed the report of the electronic meeting of the *ad hoc* Group on the Revision of the OIE Model Certificates, the comments made by the Terrestrial Code Commission and the proposed terms of reference for the *ad hoc* Group.

The Working Group welcomed the approach taken and requested the *ad hoc* Group to consider if a "sanitary certificate" (rather than a veterinary certificate) would be appropriate for pasteurized milk and dairy products (see also discussion under point 9).

The Working Group emphasised the importance of taking into account the ongoing work in the CAC on certification.

A proposed revised version of the terms of reference is presented at Appendix D for consideration by the Terrestrial Code Commission.

8. Salmonellosis

In its last meeting, the Working Group had recommended that the Director General of the OIE appoint an *ad hoc* Group to draft standards on salmonellosis in poultry to complement the ongoing work of the CAC. Therefore, the OIE Secretariat had drafted Terms of Reference for such an OIE *ad hoc* Group.

The Working Group discussed the scope of these terms of reference and agreed that animal health issues related to *Salmonella gallinarum* and *S. pullorum* should not be treated by this *ad hoc* Group. The draft terms of reference focus on on-farm methods for detection, control and prevention of *S. typhimurium* and *S. enteritidis* in laying hens; the Working Group agreed that this should encompass both hens laying eggs for human consumption (including egg products used in the food industry) as well for their breeding stock to cover the entire pyramid of egg production.

The Working Group discussed if eradication measures should be included in the terms of reference. There was some sympathy for including eradication at the flock level, as proposed by Dr Schlundt (WHO). However, the Working Group considered that it would be premature to do so at this initial stage. This issue could be reconsidered at a later stage.

In the opinion of the Working Group, the work on salmonella in laying hens should be followed by work on salmonella in broilers and on other pathogens, such as *Campylobacter* spp.

The Working Group recommended that the terms of reference should also require that the risk assessment already performed by JEMRA and other expert groups be taken into account. These amended terms of reference are attached at Appendix E.

9. Tuberculosis

The work related to food safety done by the *ad hoc* Group on Tuberculosis was presented to the Working Group.

Firstly, the *ad hoc* Group proposed to expand the scope of Chapter 2.3.3. on bovine tuberculosis to include domestic (permanently captive and owned free-range) bovines including cattle (*Bos Taurus*, *B. indicus* and *B. grunniens*), water buffalo (*Bubalus bubalis*) and wood bison (*Bison bison* and *B. bonasus*).

Secondly, in Article 2.3.3.9. on meat and meat products, the *ad hoc* Group proposed to change the existing reference to the Codex Alimentarius Code of Hygienic Practice for Meat to a reference to the new OIE *Terrestrial Code* Appendix 3.10.1. on meat inspection.

Thirdly, the *ad hoc* Group considered the notion in the report from the March 2005 meeting of the Working Group that an international sanitary certificate could serve, instead of a veterinary certificate, for products for human consumption. However, the *ad hoc* Group was of the opinion that an international veterinary certificate for meat and meat products and for milk and milk products can only be issued by an Official Veterinarian; this is already reflected in the text of the *Terrestrial Code* chapter on tuberculosis.

Finally, the *ad hoc* Group considered the request made by the Bureau of the Scientific Commission that the *ad hoc* Group explain the scientific basis for recommendations based on Codex codes of practice. The *ad hoc* Group considered that it was not necessary to provide additional scientific justification for references to Codex codes (e.g. the Codex Code of Hygienic Practice for Milk and Milk Products, CAC/RCP 57), because it considered that Codex texts are scientifically based international standards subjected to international scrutiny. Therefore, no additional scientific rationale is warranted when a reference is made to a Codex text.

The Working Group agreed with the first two proposals and with the last proposal. As regards the third proposal, the Working Group had a lengthy discussion about the use of an international sanitary certificate instead of a veterinary certificate for dairy products subjected to pasteurization or other equivalent treatments (see CAC/RCP 57, Appendix B). It decided to ask the *ad hoc* Group on the Revision of the OIE Model Certificates to address this point in its work on the certification of milk and milk products. The Working Group expressed its appreciation for the valuable work of the *ad hoc* Group on Tuberculosis.

The Working Group recommended that the approach used for the revision of the chapter on brucellosis should be consistent with the approach used for the revision of the one on tuberculosis, i.e. in regard to the certification of products for human consumption.

10. Use of the terms "risk-based"

The Working Group addressed a discussion paper prepared by Dr Andrew McKenzie, Executive Director of the New Zealand Food Safety Authority, on the use of the terms "risk-based". He explained that this paper aimed at clarifying the difference between a "risk-based" and "hazard-based" approach to standard setting. He said that many countries focused on eliminating hazards rather than focusing on risks and with increasing levels of sensitivity of diagnostic techniques were creating unnecessary problems in trade. He said that it was important to be able to evaluate a standard in relation to a given risk rather than presence or absence of a hazard. He informed the Working Group that a similar paper was being developed by New Zealand and would be submitted at the upcoming Codex Committee on General Principles (CCGP) in April 2007.

The Working Group recognised that the *Terrestrial Code* used a risk-based approach and the Chapter on bovine spongiform encephalopathy was given as an example. The Working Group noted that some Member Countries applied more stringent sanitary measures than the OIE risk-based standards thereby creating trade problems.

The Working Group agreed that OIE should continue to base its standards on risk rather than on hazards when the scientific information allowed this. The Working Group agreed to follow the discussions held in CCGP in April 2007 on the same topic.

The Working Group noted that the IPPC had undertaken work of guidelines for the application of the concept of the appropriate level of protection (ALOP) to phytosanitary issues and recommended that OIE should follow the development of the ongoing work on this topic in IPPC.

11. OIE activities on modern biotechnologies

Dr Elizabeth Erlacher-Vindel, Deputy Head of the Scientific and Technical Department, joined the meeting for this agenda item. She briefed the Working Group on the activities of the OIE *ad hoc* Group on Biotechnology.

The *ad hoc* Group met at the OIE headquarters in Paris twice, in April and in October 2006. During the first meeting, three subgroups worked on Reproductive Animal Biotechnologies, on Vaccines and on Nanotechnology. The *ad hoc* Group also revised the draft chapter from the OIE "Manual of Diagnostic Tests and Vaccines for Terrestrial Animals" on Principles of veterinary vaccine production. For the second meeting, the objectives of the *ad hoc* Group, which had been revised, were to develop guidelines on the animal health risks arising from somatic cell nuclear transfer cloning of production animals, to develop guidelines for new vaccine technologies, to monitor developments on nanotechnology and to advise the OIE on suitable procedures for the identification and tracing of animals and animal products resulting from biotechnology interventions. The main focus of the meeting in October was to develop the "Guidelines for Somatic Cell Nuclear Transfer in Production Livestock and Horses" according to the new terms of reference. She informed the Working Group on the organisation of the international symposium on 'Animal Genomics for Animal Health' which will take place at OIE headquarters from 23 to 25 October 2007.

She explained that the *ad hoc* Group took the decision not to address the ethical issues related to biotechnology. As for the recommendation to use the existing definitions used by the CAC and in the Cartagena Protocol, this was the work plan of the *ad hoc* Group.

12. Work Programme for 2007

The Working Group amended its work programme for 2007; the new version is shown at Appendix F.

13. Next meeting

The Working Group decided that its next meeting would be held from 6 to 8 November 2007.

.../Appendices

Appendix LVIII (cond)

Appendix A

MEETING OF THE OIE ANIMAL PRODUCTION FOOD SAFETY WORKING GROUP

Paris, 7–9 November 2006

—

List of participants

MEMBERS OF THE OIE WORKING GROUP

Dr Stuart Slorach (chair)
Stubbängsvägen 9A
SE-12553
ÄLVSJÖ
SWEDEN
Tel.: (46) 8646.9597
Fax: (46) 8646.9597
E-mail: stuart.slorach@gmail.com

Prof Hassan Aidaros
Professor of Preventive Medicine
Faculty of Veterinary Medicine
Banha University
FAO Consultant
5 Mossadak st
12311 Dokki
Cairo
EGYPT
Tel.: (20 12) 748 17 51
Fax: (20 12) 760 70 55
E-mail: haidaros@netscape.net

Dr Carlos A. Correa Messuti
Ministerio de Ganadería, Agricultura y Pesca
Constituyente 1476
Montevideo
URUGUAY
Tel.: (598-2) 412 63 58
Fax: (598-2) 413 63 31
E-mail: ccorream@multi.com.uy

Dr Joseph Domenech
Chief
Animal Health Service AGAH
FAO
Viale delle Terme di Caracalla
00100 Rome
ITALY
Tel.: (39-06) 570 53531
Fax: (39-06) 570 55749
E-mail: joseph.domenech@fao.org

Dr Andrew McKenzie
Executive Director
New Zealand Food Safety Authority
PO Box 2835
Wellington
NEW ZEALAND
Tel.: (64-4) 463 2502
Fax: (64-4) 463 2501
E-mail: Andrew.mckenzie@nzfsa.govt.nz

Dr Kazuaki Miyagishima
Secretary
Codex Alimentarius Commission
Joint FAO/WHO Food Standards Programme
Room C - 274
Vialle delle Terme di Caracalla
00100 Rome
ITALY
Tel.: (39-06) 570 54390
Fax: (39-06) 570 54593
E-mail: Kazuaki.Miyagishima@fao.org

Dr Alan Randell
Via Alessandro Poerio, 59
00152 Rome
ITALY
Tel.: (39-06) 58340676
E-mail: alanwill@libero.it

Mr Michael Scannell
Head of Unit
SANCO E 03
Directorate General for Health and Consumer Protection
European Commission
B-1049
Brussels
BELGIUM
Tel.: (32 2) 299.3364
Fax: (32 2) 299.8566
E-mail: Michael.Scannell@ec.europa.eu

Dr Jørgen Schlundt
Director
Department of Food Safety, Zoonoses and Foodborne Diseases
WHO
Avenue Appia 20
CH-1211 Geneva 27
SWITZERLAND
Tel.: (41-22) 791 3582
Fax: (41-22) 791 4807
E-mail: schlundtj@who.int

Dr Robert Thwala
Director of Veterinary and Livestock Services
Ministry of Agriculture and Cooperatives
PO Box 162
Mbabane
SWAZILAND
Tel.: (268) 404 6948
Fax: (268) 404 9802
E-mail: thwalar@gov.sz

Appendix LVIII (cond)

Appendix A (contd)

OTHER PARTICIPANTS

Dr Alex Thiermann
President of the OIE Terrestrial
Animal Health Standards Commission
12, rue de Prony
75017 Paris
FRANCE
Tel.: 33-1 44 15 18 69
Fax: 33-1 42 67 09 87
E-mail: a.thiermann@oie.int

OIE HEADQUARTERS

Dr Bernard Vallat
Director General
12, rue de Prony
75017 Paris
FRANCE
Tel.: 33-(0)1 44 15 18 88
Fax: 33-(0)1 42 67 09 87
E-mail: oie@oie.int

Dr Sarah Kahn
Head
International Trade Department
OIE
Tel.: 33 (0)1 44.15.18.88
Fax: 33 (0)1 42.67.09.87
E-mail: s.kahn@oie.int

Dr Willem Droppers
Chargé de mission
OIE
Tel.: 33-1-4415 1968
Fax: 33-1 4267 0987
E-mail: w.droppers@oie.int

Dr Francesco Berlingieri
Deputy Head
International Trade Department
OIE
Tel.: 33 1 4415 1888
Fax: 33-1 4267 0987
E-mail: f.berlingieri@oie.int

Dr Elizabeth Erlacher-Vindel
Deputy Head
Scientific and Technical Department
OIE
Tel.: 33-1 4415 1888
Fax: 33-1 4267 0987
E-mail: e.erlacher-vindel@oie.int

Appendix B

MEETING OF THE OIE ANIMAL PRODUCTION FOOD SAFETY WORKING GROUP
Paris, 7–9 November 2006

Adopted agenda

1. **Welcome from the Director General of the OIE**

2. **Adoption of the agenda**

3. **Report of the previous Working Group meeting**

4. **Update on OIE / Codex Alimentarius activities**

General update on OIE/Codex Alimentarius activities

5. Control of Hazards of Public Health and Animal Health Importance Through Ante-Mortem and Post-Mortem Meat Inspection

Comments received from Member Countries

6. Role and functions of Veterinary Services in food safety throughout the food chain

7. Guide to Good Farming Practices

8. Animal identification and traceability

Reports of the meetings of the *ad hoc* Group

Comments received from Member Countries

9. Animal feed

Draft report of the meeting of the *ad hoc* Group

10. Revision of OIE model certificates

Report of the meeting of the *ad hoc* Group

11. Salmonellosis

Terms of reference for the *ad hoc* Group

12. Tuberculosis

13. Use of the terms “risk-based”

14. OIE activities on modern biotechnologies

15. Work programme for 2006

16. Any other business

17. Next meeting

Appendix C

GUIDELINES FOR THE CONTROL OF HAZARDS OF ANIMAL HEALTH AND PUBLIC HEALTH IMPORTANCE IN ANIMAL FEED

PART 1

INTRODUCTION

Animal feed is a critical component of the food-chain that has a direct impact on animal health and welfare and also on food safety and public health.

Historically, the OIE primarily addressed animal feed as an important pathway for the entry and spread of contagious epidemic diseases, such as foot and mouth disease, swine vesicular disease and avian influenza. In recent years, the role of feed as a vector for disease agents, including zoonotic organisms, was a focus of standards development in regards to bovine spongiform encephalopathy. Animal feed and feed ingredients are widely traded internationally and trade disruptions have the potential to impact economies in both developed and developing countries. Since 2002 the OIE has expanded its zoonotic disease mandate to encompass animal production food safety, working in collaboration with the Codex Alimentarius Commission (CAC) and other international organisations. In 2006 the International Committee resolved that the OIE should develop guidance on foodborne zoonoses and animal feeding, complementing relevant CAC texts.

PURPOSE

The purpose of this OIE guideline is to provide guidance on animal feeding in relation to animal health and to complement the guidance provided by the Codex Code of Practice on Good Animal Feeding (CAC/RCP 54-2004) which deals primarily with food safety.

This guideline aims at ensuring the control of animal and public health hazards through adherence to recommended practices during the production (procurement, handling, storage, processing and distribution) and use of both commercial and on-farm produced animal feed and feed ingredients for food producing animals.

SCOPE

This guideline applies to the production and use of all products destined for animal feed and feed ingredients at all levels whether produced commercially or on farm. It also includes grazing or free-range feeding, forage crop production and water for drinking. Swill feeding is a particular aspect of on-farm practice that is specifically addressed because of its recognised role in disease transmission.

This guideline deals with feed for food-producing animals other than aquatic animals (i.e. livestock and poultry).

DEFINITIONS

Hazard

means a biological, chemical or physical agent in, or a condition of, feed or a feed ingredient with the potential to cause an adverse effect on animal or public health.

Feed

means any material (single or multiple), whether processed, semi-processed or raw, which is intended to be fed directly to food-producing animals.

Feed additives

means any intentionally added ingredient not normally consumed as feed by itself, whether or not it has nutritional value, which affects the characteristics of feed or animal products. Microorganisms, enzymes, acidity regulators, trace elements, vitamins and other products fall within the scope of this definition depending on the purpose of use and method of administration. This excludes veterinary drugs.

Appendix LVIII (cond)

Appendix C (contd)

Medicated feed

means any feed which contains a veterinary drug administered to food producing animals, for therapeutic or prophylactic purposes or for modification of physiological functions.

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, animal or aquatic origin, or other organic or inorganic substances.

Undesirable substance

means a contaminant or other substance which is present in and/or on feed and feed ingredients and which constitute a risk to animal or public health.

Commercial feed

means all materials that are sold and distributed as feed, or to be mixed with feed, for animals except: unmixed seed, whole, processed, or unprocessed; straw, stover, silage, cobs, husks, and hulls; or individual chemical compounds not mixed with other ingredients.

Cross contamination

means contamination of a material or product with another material or product containing a component that is potentially harmful for animal or public health or restricted under the regulatory framework.

GENERAL PRINCIPLES

Roles and responsibilities

The Competent Authority has the legal power to set and enforce regulatory animal feeding requirements, and has final responsibility for verifying that these requirements are met. The Competent Authority may establish regulatory requirements for relevant parties to provide it with information and assistance. Refer to Chapters 1.3.3. and 1.3.4. of the OIE *Terrestrial Code*.

Those involved in the production and use of animal feed and feed ingredients have the responsibility to ensure that these products meet regulatory requirements[9]. All personnel involved in the manufacture, storage and handling of feed and feed ingredients should be adequately trained and aware of their role and responsibility in preventing the spread of animal health and public health hazards. Appropriate contingency plans should be developed. Equipment should be maintained in good working order and in a sanitary condition.

It is a particular responsibility of Veterinary Services to set and enforce the regulatory requirements pertaining to the use of veterinary drugs, animal disease control and the food safety aspects that relate to the management of live animals on farm.

Those providing specialist services to producers and to the feed industry (e.g. private veterinarians and laboratories) may be required to meet specific regulatory requirements pertaining to the services they provide (e.g. disease reporting, quality standards, transparency).

9 If at the national level, there are specific food-safety or animal health regulations related to genetically modified organisms, these should be taken into account in relation to feed and feed ingredients as these products form an important part of the food-chain.

Regulatory safety standards

All feed and feed ingredients should meet regulatory safety standards. In defining limits and tolerances for hazards, scientific evidence, including the sensitivity of analytical methods and on the characterisation of risks, should be taken into account.

Risk analysis (risk assessment, risk management and risk communication)

Internationally accepted principles and practices on risk analysis (Section 1.3. of the OIE *Terrestrial Code*; and relevant Codex texts) should be used in developing and applying the regulatory framework.

Application of a generic framework should provide a systematic and consistent process for managing all biosecurity risks, while recognising the different risk assessment methodologies used in animal and public health.

Good practices

Where national guidelines exist, good agricultural practices and good manufacturing practices (including good hygienic practices) should be followed. Countries without such guidelines are encouraged to develop them.

Where appropriate, Hazard Analysis and Critical Control Point[10] (HACCP) principles should be followed to control hazards that may occur in feed.

Geographic and environmental considerations

Land and facilities used for production of animal feed and feed ingredients and water sources should not be located in close proximity to sources of hazards for animal health or food safety. Animal health considerations include factors such as disease status, location of quarantined premises and existence of zones/compartments of specified health status. Food safety considerations include factors such as industrial operations that generate pollutants and waste treatment plants.

Zoning and compartmentalisation

Feed is an important component of biosecurity and needs to be considered when defining a compartment or zone in accordance with Chapter 1.3.5. of the OIE *Terrestrial Code*.

Sampling and analysis

Sampling and analytical protocols should be based on scientifically recognized principles and procedures.

Labelling

Labelling should be clear and informative as to how the feed and feed ingredients should be handled, stored and used and should comply with regulatory requirements.

See Codex Code of practice on good animal feeding (CAC/RCP 54-2004).

[10] Hazard Analysis and Critical Control Point, as defined in the Annex to the Recommended International Code of Practice on General Principles of Food Hygiene (CAC/RCP 1-1969).

Appendix LVIII (cond)

Appendix C (contd)

Design and management of inspection programmes

In meeting animal and public health objectives prescribed in national legislation or required by importing countries, Competent Authorities contribute through the direct performance of some tasks or through the auditing of animal and public health activities conducted by other agencies or the private sector.

Feed and feed ingredients business operators and other relevant parts of industry should practice self-regulation to secure compliance with required standards for procurement, handling, storage, processing, distribution and use. Operators have the primary responsibility for implementing systems for process control. Where such systems are applied, the Competent Authority should verify that they achieve all regulatory requirements.

Assurance and certification

Competent Authorities are responsible for providing assurances domestically and to trading partners that regulatory requirements have been met. For international trade in animal product based feeds, *Veterinary Services* are required to provide international veterinary certificates.

Hazards associated with animal feed

Biological hazards

Biological hazards that may occur in feed and feed ingredients include agents such as bacteria, viruses, prions, fungi and parasites.

Chemical hazards

Chemical hazards that may occur in feed and feed ingredients include naturally occurring chemicals (such as mycotoxins and gossypol), industrial and environmental contaminants (such as dioxins and PCBs), residues of veterinary drugs and pesticides and also radionuclides.

Physical hazards

Physical hazards that may occur in feed and feed ingredients include foreign objects (such as pieces of glass, metal, plastic or wood).

Cross contamination

It is important to avoid cross-contamination during the manufacture, storage, distribution (including transport) and use of feed and feed ingredients and relevant provisions should be included in the regulatory framework. Scientific evidence, including the sensitivity of analytical methods and on the characterisation of risks, should be drawn upon in developing this framework.

Procedures, such as flushing, sequencing and physical clean-out, should be used to avoid cross-contamination between batches of feed or feed ingredients.

Antimicrobial resistance

Concerning the use of antimicrobials in animal feed refer to Section 3.9. of the OIE *Terrestrial Code*.

Management of information

The Competent Authority should establish clear requirements for the provision of information by the private sector as this relates to regulatory requirements.

Records should be maintained in a readily accessible form regarding the production, distribution and use of feed and feed ingredients. These records are required to facilitate the prompt trace-back of feed and feed ingredients to the immediate previous source, and trace-forward to the next subsequent recipients, to address identified animal health or public health concerns.

Animal identification and *animal traceability* are tools for addressing animal health (including zoonoses), and food safety risks arising from animal feed (see Section 3.5. of the OIE *Terrestrial Code*; Section 4.3. of CAC/RCP 54-2004).

Appendix LVIII (cond)

Appendix D

TERMS OF REFERENCE FOR THE OIE *AD HOC* GROUP ON THE REVISION OF THE OIE MODEL CERTIFICATES

1. Simplify the certification process by drafting templates with identical headings (information on exporting country, responsible person, identification of the commodity, address of the consignee, etc.), for all model certificates and prepare different attestations as appropriate to the commodity addressed

2. Address certificates for live animals identified individually and for animals identified in groups

3. Address products of animal origin that are not already covered (e.g. products for museums, hides and skins, feathers)

4. Address milk certificates considering the ongoing work in the Codex Committee on Milk and Milk Products

5. Provide for linkages between livestock and commodity certificates

6. Produce harmonised certificates taking into account different requirements for the various species and commodities

7. Consider the recommendations of the Animal Production Food Safety Working Group (endorsed by the Terrestrial Code Commission)

8. If possible, take an approach that is consistent with that of the Codex Alimentarius Commission (notably Codex Committee on Food Import and Export Inspection and Certification Systems)

9. Ensure compatibility with electronic certification systems

10. Make recommendations on the use of new technologies on security for avoiding fraud in certification.

Appendix LVIII (cond)

Appendix E

TERMS OF REFERENCE FOR THE OIE *AD HOC* GROUP ON SALMONELLOSIS

1. Using up to date scientific information, draft a Chapter for the OIE *Terrestrial Animal Health Code* that addresses on-farm methods for the detection, control and prevention of *Salmonella typhimurium* and *Salmonella enteritidis* in laying hens

2. Take into account risk assessments carried out by JEMRA and other expert groups

3. Take into account standards developed and under development by relevant international organisations, in particular the CAC, seeking complementarity

4. Provide scientific justification and risk basis for all recommendations.

Appendix LVIII (cond)

Appendix F

WORK PROGRAMME FOR 2007

The Working Group discussed issues identified at its previous meeting and which still needed to be addressed at some stage in the work programme. The following priorities for 2006/2007 were agreed:

1. Horizontal issues

   a) Animal identification and traceability – underway through an OIE *ad hoc* Group

   b) Certification – Terrestrial Code Commission to update the current OIE model certificates – underway with Working Group to follow up

   c) Antimicrobial resistance – Working Group to follow up Codex (Task Force on Antimicrobial Resistance), FAO, WHO and OIE developments

   d) Alternative approaches in risk management of zoonoses – listing (*ad hoc* Group on disease notification) or alternative approaches (*ad hoc* Group on emerging zoonoses, tripartite FAO/OIE/WHO GLEWS mechanism)

   e) Good farming practices – *ad hoc* Group jointly with the FAO to advance the document including the use of veterinary drugs and animal feeding

      Subtopic: reduction of chemical hazards of public and animal health significance at the farm level

   f) Guidelines for animal feeding addressing the animal health issues and complementing the existing CAC international standards – underway through an OIE *ad hoc* Group

2. Disease-specific OIE texts

   a) Chapters of the OIE *Terrestrial Animal Health Code* on brucellosis – underway for possible adoption

   b) Foodborne zoonoses (starting with salmonellosis) – convene an *ad hoc* Group to address on-farm issues complementary to Codex (CCFH) and WHO work on risk reduction – underway through an OIE *ad hoc* Group

3. Continue to strengthen relationship between OIE and Codex by:

   a) Encouraging enhanced OIE input into Codex texts

   b) Developing a method for the most effective utilisation of Codex expertise in the work of OIE *ad hoc* Groups.

4. Development of new texts

   Develop a document on the role and functionality of Veterinary Services in food safety in order to describe the involvement of Veterinary Services in food safety activities which encompasses both public and animal health objectives – underway through an OIE *ad hoc* Group.

PLANNED DISTRIBUTION OF CHAPTERS AND APPENDICES INTO TWO VOLUMES

Draft amended structure – Volume 1

PART 1	**GENERAL PROVISIONS**
SECTION 1.1.	**GENERAL DEFINITIONS**
Chapter 1.1.1.	**General definitions**
SECTION 1.2.	**NOTIFICATION SYSTEMS OF ANIMAL DISEASES**
Chapter 1.2.1.	**Notification of diseases and epidemiological information**
Chapter 1.2.2.	**Criteria for listing diseases**
Chapter 1.2.3.	**Diseases listed by the OIE**
SECTION 1.3.	**OBLIGATIONS AND ETHICS IN INTERNATIONAL TRADE**
Chapter 1.3.1.	**General obligations**
Chapter 1.3.2.	**Certification procedures**
SECTION 1.4.	**RISK ANALYSIS**
Chapter 1.4.1.	**General considerations**
Chapter 1.4.2.	**Guidelines for import risk analysis**
Chapter 1.4.3.	**Evaluation of Veterinary Services**
Chapter 1.4.4.	**Guidelines for the evaluation of Veterinary Services**
Chapter 1.4.5.	**Zoning and compartmentalisation**
Chapter 1.4.6.	**Guidelines for reaching a judgement of equivalence of sanitary measures**
SECTION 1.5.	**IMPORT/EXPORT PROCEDURES**
Chapter 1.5.1.	**Animal health measures applicable before and at departure**
Chapter 1.5.2.	**Animal health measures applicable during transit from the place of departure in the exporting country to the place of arrival in the importing country**
Chapter 1.5.3.	**Border posts and quarantine stations in the importing country**
Chapter 1.5.4.	**Animal health measures applicable on arrival**
Chapter 1.5.5.	**International transfer and laboratory containment of animal pathogens**
Chapter 1.5.6.	**Quarantine measures applicable to non-human primates**
SECTION 1.6.	**RISK ANALYSIS FOR BIOLOGICALS FOR VETERINARY USE**
Chapter 1.6.1.	**General considerations**
Chapter 1.6.2.	**Risk analysis for veterinary vaccines**
Chapter 1.6.3.	**Risk analysis for biologicals for veterinary use other than vaccines**
PART 2	**RECOMMANDATIONS APPLICABLE TO NON-SPECIFIC DISEASES**
SECTION 2.1.	**COLLECTION AND PROCESSING OF SEMEN**
Appendix 2.1.1.	**Bovine and small ruminant semen**
Appendix 2.1.2.	**Porcine semen**
SECTION 2.2.	**COLLECTION AND PROCESSING OF EMBRYOS/OVA**
Appendix 2.2.1.	***In vivo* derived embryos**
Appendix 2.2.2.	***In vitro* fertilised bovine embryos/*in vitro* maturing oocytes**
Appendix 2.2.3.	**Micromanipulated bovine embryos**
Appendix 2.2.4.	**Laboratory rodent and rabbit embryos/ova**
Appendix 2.2.5.	**Categorisation of disease and pathogenic agents by the International Embryo Transfer Society**
SECTION 2.3.	**BIOSECURITY IN ESTABLISHMENTS**
Appendix 2.3.1.	**Hygiene and disease security procedures in poultry breeding flocks and hatcheries**
Appendix 2.3.2.	**Hygiene and disease security procedures in apiaries**
Appendix 2.3.3.	**Hygiene precautions, identification, blood sampling and vaccination**

Appendix LIX (cond)

SECTION 2.4.	**IDENTIFICATION AND TRACEABILITY OF LIVE ANIMALS**
Appendix 2.4.1.	**General principles**
SECTION 2.5.	**ANIMAL WELFARE**
Appendix 2.5.1.	**Introduction to the guidelines for animal welfare**
Appendix 2.5.2.	**Guidelines for the transport of animals by sea**
Appendix 2.5.3.	**Guidelines for the transport of animals by land**
Appendix 2.5.4.	**Guidelines for the transport of animals by air**
Appendix 2.5.5.	**Guidelines for the slaughter of animals**
Appendix 2.5.6.	**Guidelines for the killing of animals for disease control purposes**
SECTION 2.6.	**ANTIMICROBIAL RESISTANCE**
Appendix 2.6.1.	**Guidelines for the harmonisation of national antimicrobial resistance surveillance and monitoring programmes**
Appendix 2.6.2.	**Guidelines for the monitoring of the quantities of antimicrobials used in animal husbandry**
Appendix 2.6.3.	**Guidelines for the responsible and prudent use of antimicrobial agents in veterinary medicine**
Appendix 2.6.4.	**Risk assessment for antimicrobial resistance arising from the use of antimicrobials in animals**
SECTION 2.7.	**ANIMAL PRODUCTION FOOD SAFETY**
Appendix 2.7.1.	**Guidelines for the control of biological hazards of animal health and public health importance through ante-mortem and post-mortem meat inspection**
PART 3	**MODEL INTERNATIONAL VETERINARY CERTIFICATES**
SECTION 3.1.	**MODEL INTERNATIONAL VETERINARY CERTIFICATES FOR LIVE ANIMALS**
Appendix 3.1.1.	**Model international veterinary certificate for dogs and cats originating from rabies infected countries**
Appendix 3.1.2.	**Model international veterinary certificate for domestic or wild animals of the bovine, bubaline, ovine, caprine or porcine species**
Appendix 3.1.3.	**Model international veterinary certificate for semen of animals of the bovine, bubaline, equine, ovine, caprine or porcine species**
Appendix 3.1.4.	**Model international veterinary certificate for equines**
Appendix 3.1.5.	**Model passport for international movement of competition horses**
Appendix 3.1.6.	**Model international veterinary certificate for birds**
Appendix 3.1.7.	**Model international veterinary certificate for day-old birds and hatching eggs**
Appendix 3.1.8.	**Model international veterinary certificate for rabbits**
Appendix 3.1.9.	**Model international veterinary certificate for bees and brood-combs**
SECTION 3.2.	**MODEL INTERNATIONAL VETERINARY CERTIFICATES FOR PRODUCTS OF ANIMAL ORIGIN**
Appendix 3.2.1.	**Model international veterinary certificate for meat of domestic animals of the bovine, bubaline, equine, ovine, caprine or porcine species of the poultry**
Appendix 3.2.2.	**Model international veterinary certificate for products of animal origin destined for use in animal feeding, or for agricultural or industrial or pharmaceutical or surgical use**

Draft amended structure – Volume 2

PART 4	**RECOMMENDATIONS APPLICABLE TO SPECIFIC DISEASES**
SECTION 4.1.	**MULTIPLE SPECIES DISEASES**
Chapter 4.1.1.	**Anthrax**
Chapter 4.1.2.	**Aujeszky's disease**
Chapter 4.1.3.	**Echinococcosis/hydatidosis**
Chapter 4.1.4.	**Leptospirosis**
Chapter 4.1.5.	**Rabies**
Chapter 4.1.6.	**Paratuberculosis**

Chapter 4.1.7. Heartwater
Chapter 4.1.8. New world screwworm (*Cochliomyia hominivorax*) and old world screwworm (*Chrysomya bezziana)*
Chapter 4.1.9. Trichinellosis (*Trichinella spiralis*)
Chapter 4.1.10. Foot and mouth disease
Chapter 4.1.11. Vesicular stomatitis
Chapter 4.1.12. Rinderpest
Chapter 4.1.13. Bluetongue
Chapter 4.1.14. Rift Valley fever
Chapter 4.1.15. Japanese encephalitis
Chapter 4.1.16. Tularemia

SECTION 4.2. CATTLE DISEASES
Chapter 4.2.1. Bovine brucellosis
Chapter 4.2.2. Bovine genital campylobacteriosis
Chapter 4.2.3. Bovine tuberculosis
Chapter 4.2.4. Enzootic bovine leukosis
Chapter 4.2.5. Infectious bovine rhinotracheitis/infectious pustular vulvovaginitis
Chapter 4.2.6. Trichomonosis
Chapter 4.2.7. Bovine anaplasmosis
Chapter 4.2.8. Bovine babesiosis
Chapter 4.2.9. Bovine cysticercosis
Chapter 4.2.10. Dermatophilosis
Chapter 4.2.11. Theileriosis
Chapter 4.2.12. Haemorrhagic septicaemia (*Pasteurella multocida* serotypes 6:b and 6:e)
Chapter 4.2.13. Bovine spongiform encephalopathy
Chapter 4.2.14. Lumpy skin disease (caused by group III virus, type Neethling)
Chapter 4.2.15. Contagious bovine pleuropneumonia

SECTION 4.3. SHEEP AND GOAT DISEASES
Chapter 4.3.1. Ovine epididymitis (*Brucella ovis*)
Chapter 4.3.2. Caprine and ovine brucellosis *(*excluding *Brucella ovis*)
Chapter 4.3.3. Contagious agalactia
Chapter 4.3.4. Caprine arthritis/encephalitis
Chapter 4.3.5. Maedi-visna
Chapter 4.3.6. Contagious caprine pleuropneumonia
Chapter 4.3.7. Enzootic abortion of ewes (ovine chlamydiosis)
Chapter 4.3.8. Scrapie
Chapter 4.3.9. Peste des petits ruminants
Chapter 4.3.10. Sheep pox and goat pox

SECTION 4.4. EQUINE DISEASES
Chapter 4.4.1. Contagious equine metritis
Chapter 4.4.2. Dourine
Chapter 4.4.3. Equine encephalomyelitis (Eastern and Western)
Chapter 4.4.4. Equine infectious anaemia
Chapter 4.4.5. Equine influenza
Chapter 4.4.6. Equine piroplasmosis
Chapter 4.4.7. Equine rhinopneumonitis
Chapter 4.4.8. Glanders
Chapter 4.4.9. Horse pox
Chapter 4.4.10. Equine viral arteritis
Chapter 4.4.11. Horse mange
Chapter 4.4.12. Venezuelan equine encephalomyelitis
Chapter 4.4.13. Epizootic lymphangitis
Chapter 4.4.14. African horse sickness

Appendix LIX (cond)

SECTION 4.5.	**SWINE DISEASES**
Chapter 4.5.1.	**Atrophic rhinitis of swine**
Chapter 4.5.2.	**Porcine brucellosis**
Chapter 4.5.3.	**Enterovirus encephalomyelitis (previously Teschen/Talfan disease)**
Chapter 4.5.4.	**Transmissible gastroenteritis**
Chapter 4.5.5.	**Swine vesicular disease**
Chapter 4.5.6.	**African swine fever**
Chapter 4.5.7.	**Classical swine fever**
SECTION 4.6.	**AVIAN DISEASES**
Chapter 4.6.1.	**Infectious bursal disease (Gumboro disease)**
Chapter 4.6.2.	**Marek's disease**
Chapter 4.6.3.	**Avian mycoplasmosis (*Mycoplasma gallisepticum*)**
Chapter 4.6.4.	**Avian chlamydiosis**
Chapter 4.6.5.	**Fowl typhoid and pullorum disease**
Chapter 4.6.6.	**Avian infectious bronchitis**
Chapter 4.6.7.	**Avian infectious laryngotracheitis**
Chapter 4.6.8.	**Avian tuberculosis**
Chapter 4.6.9.	**Duck virus hepatitis**
Chapter 4.6.10.	**Duck virus enteritis**
Chapter 4.6.11.	**Fowl cholera**
Chapter 4.6.12.	**Avian influenza**
Chapter 4.6.13.	**New castle disease**
SECTION 4.7.	**LAGOMORPH DISEASES**
Chapter 4.7.1.	**Myxomatosis**
Chapter 4.7.2.	**Rabbit haemorrhagic disease**
SECTION 4.8.	**BEE DISEASES**
Chapter 4.8.1.	**Acariosis of honey bees**
Chapter 4.8.2.	**American foulbrood of honey bees**
Chapter 4.8.3.	**European foulbrood of honey bees**
Chapter 4.8.4.	**Varroosis of honey bees**
Chapter 4.8.5.	***Tropilaelaps* infestation of honey bees**
SECTION 4.9.	**OTHER DISEASES**
Chapter 4.9.1.	**Zoonoses transmissible from non-human primates**
Chapter 4.9.2.	***Salmonella enteritidis* and *Salmonella typhimurium* in poultry**
PART 5	**RECOMMANDATIONS APPLICABLES TO SPECIFIC DISEASES**
SECTION 5.1.	**DIAGNOSTIC TESTS FOR INTERNATIONAL TRADE PURPOSES**
Appendix 5.1.1.	**Prescribed and alternative diagnostic tests for List A and List B diseases**
SECTION 5.2.	**INACTIVATION OF PATHOGENS AND VECTORS**
Appendix 5.2.1.	**General recommendations on disinfection and disinsectisation**
Appendix 5.2.2.	**Foot and mouth disease virus inactivation procedures**
Appendix 5.2.3.	**Procedures for the reduction of infectivity of transmissible spongiform encephalopathy agents**
Appendix 5.2.4.	**Classical swine fever virus inactivation procedures**
Appendix 5.2.5.	**Guidelines for the inactivation of the avian influenza virus**
Appendix 5.2.6.	**General guidelines for the disposal of dead animals**
SECTION 5.3.	**GENERAL GUIDELINES AND SURVEILLANCE FOR SPECIFIC DISEASES**
Appendix 5.3.1.	**General guidelines for animal health surveillance**
Appendix 5.3.2.	**Surveillance for rinderpest**
Appendix 5.3.3.	**Surveillance for contagious bovine pleuropneumonia**
Appendix 5.3.4.	**Surveillance for bovine spongiform encephalopathy**
Appendix 5.3.5.	**Factors to consider in conducting the bovine spongiform encephalopathy risk assessment recommended in Chapter 2.3.13.**

Appendix LIX (cond)

Appendix 5.3.6. **Principles for recognising a country or zone historically free from scrapie**
Appendix 5.3.7. **Guidelines for the surveillance of foot and mouth disease**
Appendix 5.3.8. **Guidelines for the surveillance of classical swine fever**
Appendix 5.3.9. **Guidelines for the surveillance of avian influenza**