The Initiatives of the
World Organisation for Animal Health (OIE)
in Improving Animal Welfare

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ABSTRACT

On the international level and from the human perspective, animal welfare is a complex issue with important scientific, ethical, economic and political dimensions. The World Organisation for Animal Health (OIE) as the principal international organisation for the control of animal diseases, recognised the link between animal health and welfare and, following the unanimous decision of the 167 Member Countries in 2000, expanded its mandate to become the leading international organisation in the field of animal welfare. The OIE develops standards, guidelines and recommendations based on the scientific data available that can be used by the Member Countries as foundation for their sanitary measures. In this context, the World Trade Organisation (WTO) recognises the OIE as the reference organisation for guaranteeing the sanitary safety of the world trade in animals and animal products under the Agreement on Sanitary and Phytosanitary Measures (WTO-SPS Agreement). The animal welfare guidelines are not referenced by this agreement.


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1 The points of view expressed in this report are those of the author and not the official position of the World Organisation for Animal Health (OIE)
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EPILOGUE

As a member of the veterinary medical profession, I solemnly swear that I will use my scientific knowledge and skills for the benefit of society.

I will strive to promote animal health and welfare, relieve animal suffering, protect the health of the public and the environment, and advance comparative medical knowledge.

I will practice my profession conscientiously, with dignity, and in keeping with the principles of veterinary medical ethics.

I will strive continuously to improve my professional knowledge and competence and to maintain the highest professional and ethical standards for myself and the profession.

Canadian Veterinary Oath
Canadian Veterinary Medical Association 2004
CHAPTER 1: INTRODUCTION

To be able to teach, one must first learn, by combining practical experience with theoretical knowledge. There is no better way to learn about the role of the OIE in animal health, public health and specifically animal welfare, than by participating in the process of developing the OIE standards. The most interesting aspect of this process is the fact that no procedure is the same, yet the outcomes are equivalent. This characteristic of the OIE process is the same as the goal of the OIE guidelines, written for 167 Member Countries, which, besides being at different economical stages of development, have different ethical and political priorities. It is the equivalent outcome rather than the identical approach to the issue that the guidelines communicate to the Member Countries. Proper choice of words to constitute the guidelines is hard; harder than one would imagine. This is the reason the process is dynamic and the guidelines continuously revised. Each word that is placed in the guidelines is carefully weighed to convey the exact meaning, but to allow appropriate flexibility in its application. To witness the effort and cooperation which constitute the building blocks of this process is quite fascinating and is a privilege that is greatly appreciated and cherished.

The OIE creates its guidelines, but it is up to the Member Countries to include them in their national policy. However, in the case of animal health (including zoonoses) the OIE guidelines have been utilised by the World Trade Organisation Agreement on Sanitary and Phytosanitary Measures (WTO-SPS) as the foundation for determining country’s sanitary measures for purposes of safe international trade. As such, if necessary, the OIE guidelines can be enforced by the importing country based on the WTO-SPS Agreement (1).

Unlike the guidelines on animal health, the OIE guidelines on animal welfare are not referenced in the WTO-SPS Agreement although it is possible to consider as an issue to be addressed by the WTO-TBT Agreement. Animal welfare is a sensitive issue and some countries fear its use as a barrier to international trade. In addition, the complexity and sensitivity of animal welfare extend beyond international trade, and are expressed in the ethical, economical, political and scientific dimensions of the issue. Realising the importance and the intricacy of animal welfare, the OIE Member Countries have supported the OIE assuming a leadership role in the global
approach to this issue. The transparent approach taken by the OIE to address the issue of animal welfare on a global scale provides a unique opportunity for the broad range of animal welfare stakeholders to communicate, learn and teach. Creating guidelines for animal welfare in trade is not the only aim of the OIE in this field, additional issues to be considered and addressed include stray animal control, animal welfare in veterinary curriculum, aquatic animal welfare, terrestrial animal housing and management and laboratory animal welfare.

The 5th Meeting of the OIE Permanent Working Group on Animal Welfare was an excellent moment to start learning about the OIE approach, the stakeholders involved and the specific issues currently on the agenda. The approachability of the Working Group members allowed for active participation in the meeting and as such, greatly improved the understanding of the issues discussed. As a result of the meeting, specific tasks were identified to be completed as part of this two-month externship.
CHAPTER 2: OFFICE INTERNATIONAL DES ÉPIZOOTIES (OIE)

2.1 History of the OIE

In 1924, the OIE was created by 28 countries, following the rinderpest epidemic in Belgium that was caused by transport of infected animals through this country. The original aim of the organisation was to facilitate the international effort to battle the outbreaks of serious diseases that were affecting livestock. To effectively address this issue, the Member Countries agreed to share the information on the occurrence of serious disease infections in each country and to collaborate to develop the most effective methods to control these infections. The process involved creation of science-based standards, guidelines and recommendations by the disease experts to be used by the Member Countries to achieve disease control.

Following the creation of the World Trade Organisation (WTO) in 1994, the OIE was called upon to provide its science-based standards, guidelines and recommendations in the field of animal diseases and zoonoses, as the reference for the international trade issues. Therefore, the OIE standards have become the basis of the WTO-SPS Agreement in the field of animal diseases and zoonoses (1).

In 2000, the decision of the OIE Member Countries to extend the OIE mandate to include animal welfare was influenced by the fact that disease is a major factor in animal suffering. However, although some of the Member Countries have argued that animal welfare should be covered by the WTO-SPS Agreement, others considered that it falls outside the existing scope of the SPS Agreement. The OIE guidelines on animal welfare are not referenced by the WTO-SPS Agreement (2).

2.2 Structure of the OIE

2.2.1 The International Committee and the Administrative Commission

The International Committee (Committee of Delegates) is the highest authority that meets at least once a year in General Session and it expresses its wishes via Resolutions passed during the General Sessions. It is composed of the technical permanent Delegates of the Member Countries or their alternates who vote during the course of deliberations. The permanent Delegates and the Director General of the OIE notify the Government Authorities of the Member Countries about the
Resolutions passed by the Committee during the General Sessions. Interested International Organisations may also request the information on the Resolutions passed during the General Sessions (3,4).

The Administrative Commission (the Commission) represents the International Committee during the interval between the General Sessions and is composed of the President of the International Committee, the Vice-President, the Past President and six Delegates. The Commission meets twice a year in Paris (3,4).

2.2.2 The Specialist Commissions

The OIE has four Specialist Commissions that use current scientific information to address issues in epidemiology and prevention and control of animal diseases raised by the Member Countries. The information is used to develop and revise the OIE’s international standards. The process of the development of the OIE standards strives to be transparent in order to have the best scientific basis and to gain the widest support. The four Specialist Commissions work in close collaboration to ensure a harmonised approach and inclusion of the latest scientific information in their work (3,4).

The Terrestrial Animal Health Standards Commission (the Code Commission) is composed of six elected members experienced in regulatory veterinary service from all of the OIE regions, who ensure that the Terrestrial Animal Health Code (the Terrestrial Code) reflects the current scientific information, through assistance from internationally renowned specialists. The draft and revised texts of the Terrestrial Code are submitted to the International Committee for discussion and for formal adoption into the next edition of the Terrestrial Code (3,4).

The Scientific Commission for Animal Diseases (the Scientific Commission) is composed of five specialised members, who identify the most appropriate strategies and measures for disease prevention and control. In addition, the Scientific Commission examines the applications of the Member Countries wishing to be on the OIE list of countries ‘free’ of certain diseases (3,4).

The Biological Standards Commission (the Laboratories Commission) is composed of three specialised members, who establish or approve methods for disease diagnosis and testing, used for disease control purposes. The Manual of
Diagnostic Tests and Vaccines for Terrestrial Animals (the Terrestrial Manual), created by the Laboratories Commission is an international standard text recognised by the SPS-WTO Agreement. In addition, the Laboratories Commission is responsible for selection of the OIE Reference Laboratories for diseases of terrestrial animals, and promotion of use of standard reagents for diagnostic testing (3,4).

The Aquatic Animal Health Standards Commission (the Aquatic Animals Commission) is composed of five specialised members, who ensure that the Aquatic Animal Health code (the Aquatic Code) reflects the current scientific information on diseases of fish, molluscs and crustaceans. Unlike the Terrestrial Commission, the Aquatic Animals Commission is also responsible for development and revision of the Manual of Diagnostic Tests and Vaccines for Aquatic Animals (the Aquatic Manual). The draft and revised texts are submitted to the International Committee for discussion and for formal adoption into the next edition of the Aquatic Code (3,4).

2.2.2 The Regional Commissions

The OIE has five Regional Commissions whose responsibility is to study specific problems encountered by Veterinary Services in each of the OIE regions and to promote cooperation on the regional level through organising conferences devoted to technical issues for the control of animal diseases. The Regional Commissions report to the International Committee on their activity and recommendations (3,4). The five regions of the OIE are:

- Africa
- Americas
- Asia, Far East and Oceania
- Europe
- Middle East
2.2.3 The Central Bureau

The OIE Central Bureau is located in Paris, France, and consists of six departments under the authority of the Director General. The current Director General of the OIE is Dr. Bernard Vallat, who was appointed by the International Committee for a five-year mandate starting on January 2001. In 2005, the International Committee re-appointed Dr. Vallat for another five-year mandate starting in January 2006 (4).

The responsibilities of the OIE Central Bureau include implementation and coordination of the decisions made by the International Committee during the General Sessions. In addition, the OIE Central Bureau hosts the annual General Sessions, as well as other technical meetings of the OIE Specialist Commissions and Groups. The six departments of the OIE include the Administrative and Financial Department, the Animal Health Information Department, the International Trade Department, the Scientific and Technical Department, the Department of Regional Activities and the Publication Department (3,4).

The Administrative and Financial Department is in charge of administration, finances, human resource management and similar matters. The Animal Health Information Department is responsible for the current world animal disease situation, including zoonoses, through collection, verification and dissemination of animal health information provided by the Member Countries and OIE Reference Laboratories, and maintenance of the animal health information system. The main objectives of the International Trade Department are to promote the OIE’s mandates for sanitary safety of the international trade, animal welfare and animal production food safety. The Scientific and Technical Department provides scientific guidance on the development of policies regarding disease control and prevention. In addition, it supervises the operational activities of the OIE Reference Laboratories and Collaborative Centres. The Department of Regional Activities coordinates and supports the activities of the OIE Regional Commissions and Representations. Finally, the Publication Department is responsible for publication, promotion and sale of the updated scientific and technical information regarding animal health, zoonoses, disease control and public health (4).
2.2.4 The Working Groups and the ad hoc Groups

The decision to form a permanent Working Group is made by the International Committee upon recommendation by the Director General in order to collect, analyse, disseminate and assess current information within a particular area of interest. The members of the Working Groups are specialists recognised at the international level and are selected based on their competence. The Working Groups meet annually and produce reports that communicate the proceedings and proposals to the Director General and the relevant Specialist Commissions (3). Three Working Groups are currently operating:

- **Working Group on Wildlife Diseases** – specialises in health problems relating to wild animals and disease control.
- **Working Group on Animal Welfare** – coordinates and manages the animal welfare activities of the OIE.
- **Working Group on Food Safety** – coordinates and manages the animal production food safety activities of the OIE.

The decision to form an *ad hoc* Group is made by the Director General of the OIE in order to address specific scientific and/or technical issues. Similar to the Working Groups, members of the *ad hoc* Groups are specialists in the field of interest. The *ad hoc* Group meeting reports may be used by the Working Groups, the Specialist Commissions and the International Committee in the development and the update of the OIE guidelines (3,4).

2.2.3 The Collaborating Centres and the Reference Laboratories

Centres of expertise in a particular area dealing with animal health and/or welfare may apply for a status of an OIE Collaborating Centre. The applications are reviewed by the Director General, the relevant Specialist Commission and the Administrative Commission, and, if endorsed by the Administrative Commission, submitted for approval by the International Committee. The OIE Collaborating Centres are required to submit an annual report of their activities to the OIE Central Bureau for review by the International Committee. The OIE Collaborating Centres are responsible for developing and standardising techniques that may be used to
harmonise international disease surveillance and control, and to provide expert consultants to the OIE in their area of expertise (3,4).

While the OIE Collaborating Centres deal with a particular topic within animal health, the OIE Reference Laboratories are designated to deal with the problems relating to a particular disease on the OIE lists of diseases (4).

The OIE Collaborating Centres and Reference Laboratories may also provide scientific and technical training for personnel from the Member Countries, and coordinate studies in collaboration with other laboratories or organisations. Currently, the OIE has over 150 Reference Laboratories and Collaborating Centres (4).

2.2.4 The Regional Representations

The OIE Regional Representations provide specific services to the Member Countries in the Region, in order to improve animal disease surveillance and control. The OIE regions are: Africa, the Americas, Asia-Pacific, Eastern Europe, and the Middle East (4).

2.4 Development of the OIE Standards

2.3.1 The Process

Through participation in several permanent Working Group and ad hoc Group meetings, the complexity of the process of developing and revising the OIE guidelines, recommendations and standards becomes obvious. This complexity stems from the fact that the OIE represents 167 Member Countries, each of which finds itself in a specific economical, political, cultural and ethical niche; therefore, the obvious requirements by some countries may be viewed as completely unnecessary by the others. However, the scientific basis of the OIE guidelines provides a common thread that is used to reach a consensus among the veterinary authorities of the Member Countries in this intricate process.

2.3.2 The Animal Health Codes

The Terrestrial Animal Health Code (the Terrestrial Code) and the Aquatic Animal Health Code (the Aquatic Code) are published annually (5,6). In addition, an
electronic copy of the Codes is provided on the OIE website (www.oie.int). The Codes provide guidelines for obtaining sanitary safety of international trade in terrestrial and aquatic (fish, crustaceans and molluscs) animals and their products. The guidelines include the appropriate health measures to be used to avoid the transfer of animal and/or human pathogens, while avoiding unnecessary sanitary barriers. The OIE Codes are reference documents for use by Veterinary Authorities, import/export services, epidemiologists and all those involved in international trade (4).

Each year at the General Session, the International Committee adopts new editions of the Terrestrial and Aquatic Codes, based on the recommendations of the Terrestrial and Aquatic Commissions and the relevant Working and Ad hoc Groups. Therefore, the guidelines published reflect a consensus among the veterinary authorities of the Member Countries, and are a reference for international standards for animal health and zoonoses within the WTO-SPS Agreement (1,4).

The contents of the Codes are similar, with Part 1 containing definitions of the key terms or expressions, the list of diseases covered by the OIE, procedures for listing and reporting of the diseases, ethical rules for international trade and certification, the principles of import risk analysis, the organisation of import and export procedures, and in the Aquatic Code, the guidelines for falling in aquaculture. In Part 2 of the Terrestrial Code the measures recommended cover the ‘priority’ diseases for international trade, and take into account the wide range of animal disease situations that may be present in the Member Countries. In the Aquatic Code, the recommendations are designed to prevent the introduction of a disease into the importing country, taking into consideration the nature of the commodity and the aquatic animal health status of the exporting country. Finally, the appendices of the Codes provide a series of recommendations devoted to health control and hygiene, and in case of the Terrestrial Code, they specify the diagnostic tests to be applied before export. In addition, a series of model international veterinary certificates is presented, to assist in harmonization (4).

2.3.3 The Manuals

The purpose of the Manual of the Diagnostic Tests and Vaccines for Terrestrial Animals (the Terrestrial Manual) and the Manual of Diagnostic Tests for
Aquatic Animals (the Aquatic Manual) is to provide a uniform approach to the surveillance and control of the OIE-listed diseases, so that the requirements for health certification in connection with international trade can be met (7,8).

The development and update of the Terrestrial Manual is the responsibility of the Laboratories Commission, while the Aquatic Manual was assigned to the Aquatic Animals Commission.

2.3.4 Reference Reagents

The Laboratories Commission is responsible for coordination of an OIE Reference Laboratory program involved in preparation, validation and distribution of the OIE-approved International Reference Standards for antibody assays for infectious diseases, based on the guidelines and recommendations developed by the Laboratories Commission. The aim of the program is harmonisation of diagnostic testing methods and mutual recognition of test results for international trade.
CHAPTER 3: ANIMAL WELFARE

3.1 Introduction

In recent years, the forces of globalization have defined and awakened the international realm of animal welfare as a controversial subject. Although scientific approach to improve animal welfare has started several decades ago, it has been mainly contained within the scientific community. The lack of public and veterinary awareness still plagues the field of animal welfare and it stems from complex scientific, ethical, economic, cultural and political dimensions of the animal welfare field.

The increase in animal production industries over the last 50 years has been accompanied by increasing challenges to the welfare of the farmed animals. Meanwhile, the “human-animal bond” has become a common phrase in companion animal medicine, with companion animals being treated more like family members. This discrepancy has led the public to assume that all animals are treated well. However, recently, at least in Europe, public consciousness was rudely awakened by the television images of the massive killing of animals following outbreaks of some of the major infectious diseases. These unfortunate events have been a launching point for the public, veterinary and industry interest in the field of animal welfare, in spite of the underlying complexity of this field.

The internationally recognized ‘five freedoms’ (freedom from hunger, thirst and malnutrition; freedom from fear and distress; freedom from physical and thermal discomfort; freedom from pain, injury and disease; and freedom to express normal patterns of behaviour) and “three Rs” (Reduction in numbers of animals, Refinement of experimental methods and Replacement of animals with non-animal techniques) provide valuable guidance in improvement of animal welfare. Similarly, the fact that improvements in farm animal welfare can lead to increased productivity and economic benefits should be used to gain wider support of the farming industry to implement these improvements. Overall, it is good scientific evidence, the awareness of the veterinary profession and the support of a significant majority of the general public that is necessary for possible legislative change in order to determine and maintain an appropriate level of animal care.
3.2 The OIE and Animal Welfare

Historically, no single international organisation has ever undertaken the responsibility to provide science-based standards and advice on animal welfare (9). Following the decision of the Member Countries in 2000, the OIE filled that gap by taking an international leadership role in this field, with the aim to develop science-based standards and guidelines, provide expert advice and promote relevant education and research in animal welfare. Animal welfare was identified as a priority for the OIE in the 2001-2005 and again in the 2006-2010 Strategic Plans. However, it should be noted that, as the international organisation for animal disease control and eradication, the OIE has been contributing to animal welfare through improvement of animal health, since its creation in 1924. In 1994, the OIE published “Animal Welfare and Veterinary Services” as part of its scientific and technical review series (10).

In 2002, the Permanent Working Group on Animal Welfare was established in order to direct development of the OIE science-based standards and guidelines. The International Committee adopted the guiding principles and the scientific basis for the development of animal welfare standards and guidelines in May 2004 (11; see Appendix 5.1). Based on the decision of the International Committee, the initial priority was given to the animals used in agriculture and aquaculture and the animal welfare issues in transport, humane slaughter and killing for disease purposes (2).

Considering the complexity of animal welfare, the OIE recognized the importance of participation of a broad range of stakeholders in the process. Consequently, as part of the transparent strategy, in February 2004, the OIE organized a Global Conference on Animal Welfare, with primary objectives to introduce the OIE to the relevant stakeholders and to examine the role of stakeholders and the most effective way they can contribute to the development of the OIE science-based standards (12). The conference was a success and, as a result, the valuable knowledge and resources from broad international non-governmental organisations, including those from academia, research, industry and animal protection are being used in developing and revising the guidelines.

At the 73rd General Session in May 2005, the International Committee adopted four guidelines on animal transport by land and by sea, slaughter of animals for human consumption and the killing of animals for disease purposes (13). The
summary of the current scope, priorities, functions and modus operandi of the Permanent Working Group on Animal Welfare can be found in the OIE Resolution No. XXIV (14; see Appendix 5.2).

3.2 Appendices on Animal Welfare in the Terrestrial Animal Health Code

The development and revision of the OIE recommendations, guidelines and standards is an ongoing process that results in the annual update of the Terrestrial and Aquatic Codes. Following the 5th Meeting of the OIE Permanent Working Group on Animal Welfare (the Working Group), the members of the Working Group (see Appendix 5.3) defined clear tasks to be accomplished as part of this externship project (see Appendix 5.4). The major task involved revisions of the Appendices on Animal Welfare in the Terrestrial Code, based on the comments provided by the Member Countries and as discussed during the 5th Meeting of the Working Group.

3.3.1 Definition of Animal Handler

Some of the Member Countries raised the specific issue of the definition of “animal handler” in the Terrestrial Code. The concern was that it is not realistic to expect that the Competent Authority (as defined by the Terrestrial Code) of any country could certify all the people “with a knowledge of the behaviour and needs of animals which, with appropriate experience and a professional and positive response to an animal’s needs, results in effective management and good welfare” (5). In particular, during road transport of animals it would not be feasible to have a separate certified animal handler aboard each individual truck, nor would it be practicable to require each truck driver involved in transport of animals to be certified.

To properly address this issue, it was important to maintain the requirement for a certain level of animal care, and, at the same time, include a more practical approach that the 167 Member Countries with different economical, ethical and political priorities could implement and maintain.

The chosen approach was based on the suggestions by the Working Group and it involved two steps. The first step was to re-define “animal handler” and to add a definition for an “accredited animal handler” (see Appendix 5.5). The next step was
to incorporate these definitions into each Appendix of the Animal Welfare section (Section 3.7) of the Terrestrial Code. Although the approach was harmonised, each Appendix was considered separately since the issues concerning the certification of animal handlers differed to some extent.

3.3.1.1 Guidelines for the Transport of Animals by Sea

Transport by sea generally involves movement of a large number of animals by a large vessel. Therefore, the proposed revisions suggest for the guidelines to include the requirement for at least one accredited animal handler to attend during loading, transport and unloading of animals. As such, all the other animal handlers involved in the process would not have to be certified and could work under the supervision of the accredited animal handler. Furthermore, the presence of a veterinarian during loading and unloading of animals was considered to be reasonable and feasible and the guidelines were revised accordingly (see Appendix 5.6).

3.3.1.2 Guidelines for the Transport of Animals by Land

Issue of accreditation of animal handlers in the Guidelines for the Transport of Animals by Land was comparatively more complicated since large proportion of land transport is conducted via individual trucks, sometimes involving the movement of a single animal. In this type of transport, by and large, the truck driver is the only person present during the transport and, as such, is the only animal handler available during transport. To ensure a desirable level of animal welfare, the revised guidelines address this issue by including a section on the competency of the driver (see Appendix 5.6), such that the expected competency of the driver is at the same level as the “animal handler”, but not as extensive as that of the “accredited animal handler”. In addition, the opportunity for the driver to obtain certification as an accredited animal handler was included.

Nevertheless, this approach does not address the issue of responsibility to determine fitness to travel, euthanasia, and the use of medications during the journey, which are not included under the competencies of the driver. In this context, the Competent Authority should designate the emergency contact (e.g., veterinarian,
accredited animal handler, police) whose contact information would be provided to the driver in case these issues need to be addressed while the driver is the only animal handler present.

3.3.1.3 Guidelines for the Slaughter of Animals for Human Consumption and for Killing of Animals for Disease Control Purposes

The issue of accreditation of animal handlers in these Appendices of the Animal Welfare section of the Terrestrial Code is very similar to that in the Appendix on the Transport of Animals by Sea, and has been addressed in the same manner. It is reasonable to expect that at least one veterinarian or at least one accredited animal handler is present in the slaughterhouse and as part of the specialist team assigned to handle killing for disease control purposes. Therefore, all other animal handlers could work under the supervision of the veterinarian or the accredited animal handler present (see Appendix 5.6).

3.3.1.4 Conclusion

The inclusion of the definition for the “accredited animal handler” warrants careful examination of the competencies and responsibilities of the veterinarian, the accredited animal handler and the animal handler. This is important to clearly distinguish the use of different terms both in text and in practice, especially in regards to assessment of fitness to travel and euthanasia/medication use during the journey.

3.3.2 Harmonisation of the Appendices on Animal Welfare

Considering the comments of the Member Countries, the points 3 and 4 in Article 3.7.5.1 of the Terrestrial Code on “Animal Behaviour” and “Distractions and their removal” have been added to the Appendices on Animal Transport by Land and Sea as new Articles on General Considerations (see Appendix 5.6).

The Articles 3.7.X.1 of the Terrestrial Code in the Appendices on Transport of Animals by Land or by Sea dealing with Responsibilities have been revised to more clearly list all the persons involved in animal transport. In this context, the revised Appendices list each individual with their responsibilities in a separate point within the Article (see Appendix 5.6).
Finally, point 3 of Articles 3.7.2.6 and 3.7.3.6 and parts of point 1 of Article 3.7.5.2 of the Terrestrial Code that contain guidelines on the use of goads and other aids to encourage movement of animals have been harmonised (see Appendix 5.6).

3.3.3 Consideration of Definitions

During the revisions of the Appendices on Animal Welfare, certain words appeared to be lacking a clear definition, and would therefore, benefit from being included in the list of the OIE general definitions in Chapter 1.1.1 of the Terrestrial Code. Clear definitions would be helpful in understanding these terms, as used in the Appendices on Animal Welfare of the Terrestrial Code. The inclusion of definitions of the following words should be suggested to the Code Commission:

- Animal Health, Animal Welfare, Euthanasia, Biosecurity and Waterbath

In particular, some consideration of appropriate definitions of Animal Health and Animal Welfare could help to clarify these two terms in the context of the OIE Guidelines, including the implied inclusion of animal welfare within animal health or vice versa.

3.3.4 Diagrams on Farm Animal Euthanasia

The Permanent Working Group on Animal Welfare requested that the Central Bureau obtain material to update the diagrams and the text describing the stunning and killing methods of farm animals in point 2 of Article 3.7.5.7 and point 5 of Article 3.7.6.6. In particular, the concern was that the diagrams do not correspond well with the text describing exact sites of stunning and killing recommended. As part of this externship project, a list of resources was compiled that provide diagrams and description of the stunning and killing methods that may be used by the Central Bureau or the Working Group to update the current diagrams (see Appendix 5.7).

3.4 Animal Welfare in Veterinary Curriculum

Paradoxically, in veterinary medicine, where the words “animal welfare” have been included in the professional oath, the specific issues in animal welfare are seldom taught and have generally been part of an active discovery by those student veterinarians specifically interested in this topic. However, with the growing
international interest in the field of animal welfare, the world expects veterinarians to be the source for the current science-based information and advice on this topic. Rather appropriate considering the expertise of veterinarians in animal health – defined as “a state of physical and psychological well-being and of productivity including reproduction” (15), except for the lack of training veterinarians receive during their schooling in the “psychological well-being” of animals.

There is an immense body of scientific information available on improvement of animal welfare that can be used to create a substantial subject in the veterinary curriculum. However, all of the scientific work up-to-date has only begun to scratch the surface of this vast field, and, it is only through steady continuous research that new questions and answers will arise, slowly increasing our understanding of the principles involved in the improvement of animal welfare. In this context, it is particularly important to obtain and maintain secure funding resources to support the new and the ongoing research in this field.

The commitment of the OIE Permanent Working Group on Animal Welfare to increase awareness about this field (including education and funding) is reflected in their recommendation that the OIE Regional Commissions and Representations also play an active role in promoting the OIE animal welfare initiative, with active involvement of Working Group regional members (14; see Appendix 5.2). As part of this externship project, a letter was drafted to the Delegates of the Member Countries that highlights the OIE leadership role in animal welfare and requests designation of an animal welfare contact person (“focal point”) within each Member Country (see Appendix 5.8). This animal welfare contact person will facilitate the communication between the OIE Permanent Working Group on Animal Welfare and the Member Countries specifically on the issues relating to animal welfare. Furthermore, based on a draft letter prepared by the Working Group, a letter was composed to the Delegates of Member Countries encouraging increased awareness of animal welfare issues, specifically in connection to education and research funding (see Appendix 5.9).

3.5 Organisations linked to the OIE

During the 5th Meeting of the OIE Permanent Working Group on Animal Welfare, the Working Group Members suggested that, in order to successfully continue with the transparent approach it would be useful to have a list of
organisations linked to the OIE on the topic of animal welfare. As part of this externship project, the list was compiled, and includes non-governmental organisations (NGOs) with background in veterinary medicine, academia, farming industry and animal protection (see Appendix 5.10). In addition to its usefulness for the Members of the Working Group, the list may also be useful for the Delegates of Member Countries and it may be considered as an addition to the content of the OIE website.
CHAPTER 4: CONCLUSION

Exploitation of animals occurs throughout the world and the reasons are varied, such as the need for food, clothing and medicines, as well as for sport, exhibition and companionship. Specific animal welfare issues vary between animal industries and species, and not all can be addressed in today’s farming practices. However, there are some common basic considerations, such as appropriate housing, handling and nutrition, responsible care and management, disease prevention and treatment, and humane slaughter that are essential in maintaining a minimum acceptable level of welfare. Therefore, the work of the OIE Permanent Working Group on Animal Welfare is aimed at creating science-based guidelines that will address these basic issues. In addition, the Working Group will address issues that will act to indirectly improve animal welfare by raising awareness in veterinary, industry and public sectors. Primarily via education and training which includes increasing awareness of animal welfare in undergraduate teaching, increasing awareness of animal welfare research needs and funding requirements and promoting collaboration among academic and research institutions.

Interaction between consumers and scientific and veterinary communities will also continue to raise awareness about the importance of animal welfare. In the future, based on the ongoing research, the developing countries could use the OIE guidelines to develop industry and veterinary structures that consider and improve animal welfare, and avoid expensive changes to inadequate facilities in the future.

The role of the OIE as the leader in the field of animal welfare is a complicated one, but its transparent approach, with the involvement of all of the stakeholders, has a great promise for keeping animal welfare on the agenda and addressing important issues in the future. The veterinary community should be proud of the accomplishments of the OIE thus far and should support this OIE initiative by establishing animal welfare as a key component of the profession.
REFERENCES


APPENDIX
1. Guiding principles and scientific basis for developing the guidelines on animal welfare
SECTION 3.7.
ANIMAL WELFARE

APPENDIX 3.7.1.
INTRODUCTION TO THE GUIDELINES FOR ANIMAL WELFARE

Article 3.7.1.1.

Guiding principles for animal welfare

1. That there is a critical relationship between animal health and animal welfare.

2. That the internationally recognised ‘five freedoms’ (freedom from hunger, thirst and malnutrition; freedom from fear and distress; freedom from physical and thermal discomfort; freedom from pain, injury and disease; and freedom to express normal patterns of behaviour) provide valuable guidance in animal welfare.

3. That the internationally recognised ‘three Rs’ (reduction in numbers of animals, refinement of experimental methods and replacement of animals with non-animal techniques) provide valuable guidance for the use of animals in science.

4. That the scientific assessment of animal welfare involves diverse elements which need to be considered together, and that selecting and weighing these elements often involves value-based assumptions which should be made as explicit as possible.

5. That the use of animals in agriculture and science, and for companionship, recreation and entertainment, makes a major contribution to the wellbeing of people.

6. That the use of animals carries with it an ethical responsibility to ensure the welfare of such animals to the greatest extent practicable.

7. That improvements in farm animal welfare can often improve productivity and food safety, and hence lead to economic benefits.

8. That equivalent outcomes (performance criteria), rather than identical systems (design criteria), be the basis for comparison of animal welfare standards and guidelines.

Article 3.7.1.2.

Scientific basis for guidelines

1. Welfare is a broad term which includes the many elements that contribute to an animal’s quality of life, including those referred to in the ‘five freedoms’ listed above.

2. The scientific assessment of animal welfare has progressed rapidly in recent years and forms the basis of these guidelines.
3. Some measures of animal welfare involve assessing the degree of impaired functioning associated with injury, disease, and malnutrition. Other measures provide information on animals' needs and affective states such as hunger, pain and fear, often by measuring the strength of animals' preferences, motivations and aversions. Others assess the physiological, behavioural and immunological changes or effects that animals show in response to various challenges.

4. Such measures can lead to criteria and indicators that help to evaluate how different methods of managing animals influence their welfare.
CONSIDERING THAT

1. Animal welfare is a complex, multi-faceted, international and domestic public policy issue, which includes important scientific, ethical, economic and political dimensions.

2. The Director General has established a permanent Working Group on Animal Welfare, which draws up a substantial and detailed annual work programme.

3. A successful Global Conference on Animal Welfare was held in February 2004, which confirmed the OIE's international leadership role in animal welfare.

4. A set of four priority animal welfare guidelines was adopted at the May 2005 General Session and is the subject of ongoing updates.

5. Four guidelines and general principles on aquatic animal welfare have been proposed by the Working Group, endorsed by the Aquatic Animal Health Standards Commission and circulated for Member Countries’ comments.

6. Scoping and preparatory work is underway in respect of the additional areas of strategic priority, agreed the 2005 General Session, with an ad hoc Group already established to address Stray Animal Control.


8. The active involvement of all OIE Member Countries will be essential to the success of the initiative.

THE COMMITTEE

RECOMMENDS THAT

1. The Director General maintains the Working Group on Animal Welfare to advise him, as well as the Terrestrial and Aquatic Animal Health Standards Commissions, on OIE activities in the field of animal welfare.

2. The Working Group’s and OIE Central Bureau’s 2005/2006 work programmes be the basis for the OIE’s activities on animal welfare for the next 12 months, and the OIE Central Bureau and Working Group be provided with the necessary resources to address the priorities listed.
3. Veterinary Services in each Member Country be actively involved in the preparation, review and implementation of animal welfare regulations and legislation, with national animal welfare contact points established on behalf of the OIE Delegate to facilitate communication.

4. All OIE Member Countries play an active role in their Regions with relevant stakeholders including institutions, non-governmental organisations, and the private sector in the development and implementation of OIE guidelines on animal welfare.

5. The OIE Regional Commissions and Representations also play an active role in promoting this OIE initiative (particularly in relation to animal welfare in education), with active involvement of Working Group regional members.

(Adopted by the OIE International Committee on 23 May 2006)
3. Members of the OIE Permanent Working Group on Animal Welfare
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4. Externship Goals
1. Address Member Country Comments as discussed during the 5th Meeting of the Permanent Working Group on Animal Welfare (PAWWG), focusing on the issue of certification of animal handlers and harmonisation of the guidelines (see Appendices 5.5 and 5.6)

2. Compile a list of resources to be used to improve the diagrams on slaughter and killing for disease purposes within guidelines on animal welfare (see Appendix 5.7)

3. Compose a draft letter to the Delegates of Member Countries regarding National Animal Welfare Focal Points (see Appendix 5.8)

4. Compose a draft letter to the Delegates of Member Countries regarding Animal Welfare in Veterinary Curriculum and Animal Welfare Research Funding (based on draft letters provided by Dr. Bayvel) (see Appendix 5.9)

5. Compile a list of organisations representing various stakeholders involved in the OIE animal welfare initiative (see Appendix 5.10)

6. Help with the organisation of the 2nd global conference on animal welfare
5. Definition of animal handler
CHAPTER 1.1.1.
GENERAL DEFINITIONS

**Animal handler**
A person with a knowledge of the behaviour and needs of animals which, with appropriate experience and a professional and positive response to an animal’s needs, results in effective management and good welfare. In cases during animal transport by land in individual trucks, the truck driver may be the animal handler if a designated animal handler is not present (under study). Their competence should be demonstrated through independent assessment and certification from the Competent Authority or from an independent body accredited by the Competent Authority (under study).

**Accredited/Certified animal handler**
A person with a knowledge of the behaviour and needs of animals which, with appropriate experience and a professional and positive response to an animal’s needs, results in effective management and good welfare. Their competence should be demonstrated through independent assessment and certification from the Competent Authority or from an independent body accredited by the Competent Authority (under study).

---

Sonja Rosic-Banjanin (SRB)

(Rationale)

Member countries have expressed concern that the process of certification would be time consuming and impractical for the vast amount of personnel involved in animal handling. Therefore two categories of animal handlers have been defined those that must have certification (accredited/certified animal handler) and others where certification may not be necessary (animal handler).

Furthermore, based on the text, it appears that this issue is only a problem in the case of transport of animals by land in individual trucks where it would not be possible to certify each truck driver. However, in cases of train transport, or sea transport in large vessels, or at slaughterhouses it seems possible to have at least one accredited animal handler aboard who could serve as a source of information as well as quality controller.
6. Guidelines for the transport of animals by sea and by land, for the slaughter of animals for human consumption and for the killing of animals for disease control purposes
APPE N D I X  3 . 7 . 2 .

GUIDELINES FOR THE TRANSPORT OF ANIMALS BY SEA

Preamble: These guidelines apply to the following live domesticated animals: cattle, buffalo, deer, camelids, sheep, goats, pigs and equines. They may also be applicable to other domesticated animals.

Article 3.7.2.1.

The amount of time animals spend on a journey should be kept to the minimum.

Article 3.7.2.1. bis

1. Animal behaviour

Accredited animal handlers and animal handlers should be experienced and competent in handling and moving farm livestock and understand the behaviour patterns of animals and the underlying principles necessary to carry out their tasks.

The behaviour of individual animals or groups of animals will vary, depending on their breed, sex, temperament and age and the way in which they have been reared and handled. Despite these differences, the following behaviour patterns which are always present to some degree in domestic animals, should be taken into consideration in handling and moving the animals.

Most domestic livestock are kept in herds and follow a leader by instinct.

Animals which are likely to be hostile to each other in a group situation should not be mixed.

The desire of some animals to control their personal space should be taken into account in designing loading and unloading facilities, transport vessels and containers.

Domestic animals will try to escape if any person approaches closer than a certain distance. This critical distance, which defines the flight zone, varies among species and individuals of the same species, and depends upon previous contact with humans. Animals reared in close proximity to humans (i.e., tame) have a small smaller flight zone, whereas those kept in free range or extensive systems may have flight zones which may vary from one metre to many metres. Accredited animal handlers and/or animal handlers should avoid sudden penetration of the flight zone which may cause a panic reaction which could lead to aggression or attempted escape.

SRB

It is more appropriate to say “any person” considering that animal handler may not be the only one who approaches the animal.

In this text, zone should not be italicised.

Tame animals may not necessarily have small flight zone, but smaller than those that were not tamed.

An example of a flight zone (cattle)
Accredited animal handlers and animal handlers should use the point of balance at the animal’s shoulder to move animals, adopting a position behind the point of balance to move an animal forward and in front of the point of balance to move it backward.

Domestic animals have wide-angle vision but only have limited forward binocular vision and poor perception of depth. This means that they can detect objects and movements beside and behind them, but can only judge distances directly ahead.

Although all domestic animals have a highly sensitive sense of smell, they may react differently to the smells encountered during travel. Smells which cause fear or other negative responses should be taken into consideration when managing animals.

Domestic animals can hear over a greater range of frequencies than humans and are more sensitive to higher frequencies. They tend to be alarmed by constant loud noise and by sudden noises, which may cause them to panic. Sensitivity to such noises should also be taken into account when handling animals.
2. Distractions and their removal

Distractions that may cause approaching animals to stop, baulk or turn back should be designed out from new loading and unloading facilities or removed from existing ones. Below are examples of common distractions and methods for eliminating them:

a) reflections on shiny metal or wet floors - move a lamp or change lighting;

b) dark entrances - illuminate with indirect lighting which does not shine directly into the eyes of approaching animals;

c) animals seeing moving people or equipment up ahead - install solid sides on chutes and races or install shields;

d) chains or other loose objects hanging in chutes or on fences - remove them;

e) uneven floors or a sudden drop in floor levels – avoid uneven floor surfaces or install a solid false floor to provide an illusion of a solid and continuous walking surface;

f) sounds of air hissing from pneumatic equipment - install silencers or use hydraulic equipment or vent high pressure to the external environment using flexible hosing;

g) clanging and banging of metal objects - install rubber stops on gates and other devices to reduce metal to metal contact;

h) air currents from fans or air curtains blowing into the face of animals - redirect or reposition equipment.

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Article 3.7.2.2.

**Responsibilities**

Once the decision to transport the animals by sea has been made, the welfare of the animals during their journey is the paramount consideration and is the joint responsibility of all people involved. The individual responsibilities of those persons involved will be described in more detail in this Article. These guidelines may also be applied to the transport of animals by water within a country.

The management of animals at post-discharge facilities is outside the scope of this Appendix.

The roles of each of those responsible are defined below:

1. General considerations

   a) Exporters, importers, owners of animals, business or buying/selling agents, shipping companies, masters of vessels and managers of facilities are jointly responsible for the general health of the animals and their fitness for the journey, and for their overall welfare during the journey, regardless of whether duties are subcontracted to other parties during transport.

   b) The Exporters, the shipping companies, business or buying/selling agents and the masters of the vessels are jointly responsible for planning the journey to ensure the care of the animals, including:

      i) choosing appropriate vessels and ensuring that at least one accredited animal handler and the appropriate number of animal handlers are available to care for the animals;
ii) developing and keeping up to date contingency plans to address emergencies (including adverse weather conditions) and minimise stress during transport;

iii) correct loading of the ship, regular inspections during the journey and for appropriate responses to problems arising;

iv) disposal of carcasses according to international law.

c) To carry out these responsibilities, the people parties involved should be competent regarding transport regulations, equipment usage, and the humane handling and care of animals.

**SRB**

In cases where accreditation of certain personnel is not possible, it should be possible to ensure their competence by placing the responsibility on the qualified personnel that should have accreditation. This is not currently included in the text, but it might be useful to.

2. Specific considerations

a) The responsibilities of the exporters include:

2. The exporter has overall responsibility for the organisation, carrying out and completion of the journey, regardless of whether duties are subcontracted to other parties during transport. The exporter is also responsible for ensuring that equipment and medication are provided as appropriate for the species and journey, and for the presence during the journey of at least one animal handler competent for the species being transported. The exporter is also responsible for ensuring compliance of the animals with any required veterinary certification and, in the case of animals for export, any other requirements of the importing and exporting countries.

i) the organisation, carrying out and completion of the journey, regardless of whether duties are subcontracted to other parties during transport;

ii) ensuring that equipment and medication are provided as appropriate for the species and the journey;

iii) securing the presence of at least one accredited animal handler and the appropriate number of animal handlers competent for the species being transported;

iv) ensuring compliance of the animals with any required veterinary certification, and their fitness to travel;

v) in case of animals for export, ensuring compliance with any requirements of the importing and exporting countries.

b) The responsibilities of the importers include:

(under study)

c) The responsibilities of the owners of the animals include:

i) selection of animals that are fit to travel based on veterinary recommendation.

3. Business or buying/selling agents have a joint responsibility with owners for the selection of animals that are fit to travel. They have a joint responsibility with masters of vessels and managers of facilities at the start and at the end of the journey for the availability of suitable facilities for the assembly, loading, transport, unloading and holding of animals, and for emergencies.
d) The responsibilities of the business or buying/selling agent include:

i) selection of animals that are fit to travel based on veterinary recommendation;

ii) availability of suitable facilities for the assembly, **loading**, **transport**, **unloading** and holding of animals at the start and at the end of the journey, and for emergencies.

g) The responsibilities of shipping companies include:

(under study)

f) The responsibilities of masters of **vessels** include:

i) provide suitable premises for animals on the **vessel**.

g) The responsibilities of managers of facilities during **loading** include:

i) Managers of facilities during **loading** of the animals are responsible for:

i) providing suitable premises for **loading** the animals;

ii) providing at least one **accredited animal handler** and an appropriate number of **animal handlers** to load the animals with minimum stress and the avoidance of injury;

iii) minimising the opportunities for disease transmission while the animals are in the facilities;

iv) providing appropriate facilities for emergencies;

v) providing facilities, **veterinarians** and/or **accredited animal handlers** capable of killing animals humanely when required.

h) The responsibilities of managers of facilities during **unloading** include:

ii) Managers of facilities at the end of the journey are responsible for:

i) providing suitable facilities for **unloading** the animals onto transport **vehicles** for immediate movement or securely holding the animals in lairage, with shelter, water and feed, when required, for transit;

ii) providing at least one **accredited animal handler** and an appropriate number of **animal handlers** to unload the animals with minimum stress and injury;

iii) minimising the opportunities for disease transmission while the animals are in the facilities;

iv) providing appropriate facilities for emergencies;

v) providing facilities, **veterinarians** and/or **accredited animal handlers** capable of killing animals humanely when required.

4. **Accredited animal handlers** and animal handlers (Animal handlers) are responsible for the humane handling and care of animals, especially during **loading** and **unloading**. To carry out these responsibilities, **accredited animal handlers** (they) should have the authority to take prompt action.

i) The responsibilities of the **accredited animal handlers** include:
i) humane handling and care of the animals, especially during loading and unloading;

ii) possess authority to take prompt action in order to maintain the required level of animal care and handling by the animal handlers.

j) The responsibilities of the animal handlers include:

i) humane handling and care of the animals, especially during loading and unloading.

k) The responsibilities of the Competent Authority of the exporting country include:

i) establishing minimum standards for animal welfare, including requirements for inspection of animals before and during their travel, and for certification and record keeping;

ii) establishing requirements for a veterinarian and/or an accredited animal handler qualified to approving facilities, containers, vehicles/vessels for the holding and transport of animals, including that of the importing country;

iii) setting competence standards for accredited animal handlers and animal handlers and managers of facilities;

iv) ensuring that the vessel transporting animals meets the required standards, including those of the importing country.

SRB

Line iv) could be fully addressed by line ii) by adding “including that of the importing country”

v) implementation of the standards, including through accreditation of / interaction with other organisations and Competent Authorities;

vi) establishing requirements for a veterinarian and/or an accredited animal handler to monitoring and evaluating health and welfare performance, including the use of any veterinary medications.

l) The responsibilities of the Competent Authority of the importing country include:

i) establishing minimum standards for animal welfare, including requirements for inspection of animals after their travel, and for certification and record keeping;

ii) establishing requirements for a veterinarian and/or an accredited animal handler qualified to approving facilities, containers, vehicles/vessels for the holding and transport of animals;

iii) setting competence standards for accredited animal handlers and animal handlers and managers of facilities;

iv) implementation of the standards, including through accreditation of / interaction with other organisations and Competent Authorities;

v) ensuring that the exporting country is aware of the required standards for the vessel transporting the animals;

vi) establishing requirements for a veterinarian and/or an accredited animal handler to monitoring and evaluating health and welfare performance, including the use of any veterinary medications.
12. When travelling on vessels with the animals, veterinarians are responsible for the humane handling and treatment of the animals during the journey. To carry out these responsibilities, they should have the authority to act and report independently. The veterinarian should meet with the Master, Chief Officer and the senior accredited animal handler (senior animal handler) on a daily basis.

m) The responsibilities of veterinarians travelling on the vessel with the animals include:

   i) humane handling and treatment of animals during the journey, including in emergencies, such as euthanasia;

   ii) possess ability to report and act independently;

   iii) meet daily with the master of the vessel and the accredited animal handler to obtain up-to-date information on animal health and welfare status.

SRB

It should be indicated who is responsible for euthanasia.

n) The receiving Competent Authority should report back to the sending Competent Authority on significant animal welfare problems which occurred during the journey.

   Article 3.7.2.3.

Competence

1. All people responsible for animals during journeys, should be competent according to their responsibilities listed in Article 3.7.2.2. Competence in areas other than animal welfare would need to be addressed separately. Competence may be gained through formal training and/or practical experience.

2. The competence of accredited animal handlers should be demonstrated through a current certificate from the Competent Authority or from an independent body accredited by the Competent Authority. The certificate should be in one of the OIE official languages if the international transport of animals is involved.

3. The assessment of competence of accredited animal handlers should at a minimum address knowledge, and ability to apply that knowledge, in the following areas:

   a) planning a journey, including appropriate space allowance, feed, water and ventilation requirements;

   b) responsibilities for animals during the journey, including loading and unloading;

   c) sources of advice and assistance;

   d) animal behaviour, general signs of disease, and indicators of poor animal welfare such as stress, pain and fatigue, and their alleviation;

   e) assessment of fitness to travel; if fitness to travel is in doubt, the animal should be examined by a veterinarian;

   f) relevant authorities and applicable transport regulations, and associated documentation requirements;

   g) general disease prevention procedures, including cleaning and disinfection;
b) appropriate methods of animal handling during transport and associated activities such as assembling, loading, and unloading;

i) methods of inspecting animals, managing situations frequently encountered during transport such as adverse weather conditions, and dealing with emergencies, including euthanasia;

j) species-specific aspects and age-specific aspects of animal handling and care, including feeding, watering and inspection; and

k) maintaining a journey log and other records.

SRB
It should be indicated who is responsible for euthanasia.

4. The assessment of competence of animal handlers should at a minimum address knowledge, and ability to apply that knowledge, in the following areas:

a) planning a journey, including appropriate space allowance, and feed, water and ventilation requirements;

b) responsibilities for animals during the journey, including loading and unloading;

c) sources of advice and assistance;

d) animal behaviour, general signs of disease, and indicators of poor animal welfare such as stress, pain and fatigue, and their alleviation;

e) general disease prevention procedures, including cleaning and disinfection;

f) appropriate methods of animal handling during transport and associated activities such as assembling, loading, and unloading;

p) methods of inspecting animals, managing situations frequently encountered during transport such as adverse weather conditions;

b) species-specific aspects and age-specific aspects of animal handling and care, including feeding, watering and inspection; and

i) maintaining a journey log and other records.

5. Assessment of competence for exporters, importers, owners of animals, business or buying/selling agents, shipping companies, masters of vessels and managers of facilities should at a minimum address knowledge, and ability to apply that knowledge, in the following areas:

a) planning a journey, including appropriate space allowances, and feed, water and ventilation requirements;

b) relevant authorities and applicable transport regulations, and associated documentation requirements;

c) appropriate methods of animal handling during transport and associated activities such as cleaning and disinfection, assembling, loading, and unloading;

d) species-specific aspects of animal handling and care, including appropriate equipment and medication;
Planning the journey

1. General considerations

   a) Adequate planning is a key factor affecting the welfare of animals during a journey.

   b) Before the journey starts, plans should be made in relation to:

      i) preparation of animals for the journey;

      ii) type of transport vessel required;

      iii) route, taking into account distance, expected weather and sea conditions;

      iv) nature and duration of journey;

      v) daily care and management of the animals, including presence of at least one accredited animal handler and the appropriate number of animal handlers, to help ensure the health and welfare of all the animals;

      vi) avoiding the mixing of animals from different sources in a single pen group;

      vii) provision of appropriate equipment and medication for the numbers and species carried; and

      viii) emergency response procedures.

2. Preparation of animals for the journey

   a) When animals are to be provided with a novel diet or unfamiliar methods of supplying of feed or water, they should be preconditioned.

   b) There should be planning for water and feed availability during the journey. Feed should be of appropriate quality and composition for the species, age, condition of the animals, etc.

   c) Extreme weather conditions are hazards for animals undergoing transport and require appropriate vessel design to minimise risks. Special precautions should be taken for animals that have not been acclimatised or which are unsuited to either hot or cold conditions. In some extreme conditions of heat or cold, animals should not be transported at all.

   d) Animals more accustomed to contact with humans and with being handled are likely to be less fearful of being loaded and transported. Animals should be handled and loaded in a manner that reduces their fearfulness and improves their approachability.

   e) Behaviour-modifying (such as tranquillisers) or other medication should not be used routinely during transport. Such medicines should only be administered when a problem exists in an individual animal, and should be administered by a veterinarian or other person who has been
instructed in their use by a veterinarian, such as an accredited animal handler. Treated animals should be placed in a dedicated area.

3. Control of disease

As animal transport is often a significant factor in the spread of infectious diseases, journey planning should take into account the following:

a) When possible and agreed by the Veterinary Authority of the importing country, animals should be vaccinated against diseases to which they are likely to be exposed at their destination.

b) Medications used prophylactically or therapeutically should only be administered by a veterinarian or other person who has been instructed in their use by a veterinarian, such as an accredited animal handler.

c) Mixing of animals from different sources in a single consignment should be minimized.

SRB

Each of the above lines is a separate sentence and as such should not be connected by semi-colons. Instead, they should be as currently suggested.

4. Vessel and container design and maintenance

a) Vessels used for the sea transport of animals should be designed, constructed and fitted as appropriate to the species, size and weight of the animals to be transported. Special attention should be paid to the avoidance of injury to animals through the use of secure smooth fittings free from sharp protrusions and the provision of non-slip flooring. The avoidance of injury to accredited animal handlers or animal handlers while carrying out their responsibilities should be emphasised.

b) Vessels should be properly illuminated to allow animals to be observed and inspected.

c) Vessels should be designed to permit thorough cleaning and disinfection, and the management of faeces and urine.

d) Vessels and their fittings should be maintained in good mechanical and structural condition.

e) Vessels should have adequate ventilation to meet variations in climate and the thermo-regulatory needs of the animal species being transported. The ventilation system should be effective when the vessel is stationary. An emergency power supply should be available to maintain ventilation in the case of primary machinery breakdown.

f) The feeding and watering system should be designed to permit adequate access to feed and water appropriate to the species, size and weight of the animals, and to minimise soiling of pens.

g) Vessels should be designed so that the faeces or urine from animals on upper levels do not soil animals on lower levels, or their feed or water.

h) Loading and stowage of feed and bedding should be carried out in such a way to ensure protection from fire hazards, the elements and sea water.

i) Where appropriate, suitable bedding, such as straw or sawdust, should be added to vessel floors to assist absorption of urine and faeces, provide better footing for animals and protect animals (especially young animals) from hard or rough flooring surfaces and adverse weather conditions.
j) The above principles apply also to containers used for the transport of animals.

5. Special provisions for transport in road vehicles on roll-on/roll-off vessels or for containers

a) Road vehicles and containers should be equipped with a sufficient number of adequately designed, positioned and maintained securing points enabling them to be securely fastened to the vessel.

b) Road vehicles and containers should be secured to the ship before the start of the sea journey to prevent them being displaced by the motion of the vessel.

c) Vessels should have adequate ventilation to meet variations in climate and the thermo-regulatory needs of the animal species being transported, especially where the animals are transported in a secondary vehicle/container on enclosed decks.

d) Due to the risk of limited airflow on certain vessel’s decks, a road vehicle or container may require a forced ventilation system of greater capacity than that provided by natural ventilation.

6) Nature and duration of the journey

The maximum duration of a journey should be determined according to factors that determine the overall welfare of animals, such as:

a) the ability of the animals to cope with the stress of transport (such as very young, old, lactating or pregnant animals);

b) the animals’ previous transport experience of the animals;

c) the likely onset of fatigue;

d) the need for special attention;

e) the need for feed and water;

f) the increased susceptibility to injury and disease;

g) space allowance and vessel design;

h) weather conditions.

7. Space allowance

a) The number of animals which should be transported on a vessel and their allocation to different pens on the vessel should be determined before loading.

b) The amount of space required, including headroom, depends on the species of animal and should allow the necessary thermoregulation. Each animal should be able to assume its natural position for transport (including during loading and unloading) without coming into contact with the roof or upper deck of the vessel. When animals lie down, there should be enough space for every animal to adopt a normal lying posture.

c) Calculations for the space allowance for each animal should be carried out, using the figures given in Appendix XXX or, in their absence, in a relevant national or international document. The size of pens will affect the number of animals in each.

d) The same principles apply when animals are transported in containers.

8. Ability to observe animals during the journey
Animals should be positioned to enable each animal to be observed regularly and clearly by the accredited animal handler or other responsible person, during the journey to ensure their safety and good welfare.

SRB

Or other responsible person is not necessary, since animal handlers should be present during the sea transport.

9. Emergency response procedures

There should be an emergency management plan that identifies the important adverse events that may be encountered during the journey, the procedures for managing each event and the action to be taken in an emergency. For each important event, the plan should document the actions to be undertaken and the responsibilities of all parties involved, including communications and record keeping.

Article 3.7.2.5.

Documentation

1. Animals should not be loaded until the documentation required to that point is complete.

2. The documentation accompanying the consignment should include:
   a) journey travel plan (including an emergency management plan);
   b) time, date and place of loading;
   c) the journey log – a daily record of inspection and important events which includes records of morbidity and mortality and actions taken, climatic conditions, food and water consumed, medication provided, mechanical defects;
   d) expected time, date and place of arrival and unloading;
   e) veterinary certification, when required;
   f) animal identification to allow traceback of individual animals to the premises of departure, and, where possible, to the premises of origin;
   g) details of any animals considered ‘at risk’ at particular risk of suffering poor welfare during transport (Article 3.7.6.3.2);
   h) number of accredited animal handlers and animal handlers on board, and their competencies; and
   i) stocking density estimate for each load in the consignment.

SRB

Animal traceability is a term used by the OIE and is included in the definitions of the Terrestrial Code.

3. When veterinary certification is required to accompany consignments of animals, it should address:
   a) when required, details of disinfection carried out;
   b) fitness of the animals to travel;
c) animal identification (description, number, etc.); and

d) health status including any tests, treatments and vaccinations carried out.

Article 3.7.2.6.

Pre-journey period

1. General considerations

a) Before each journey, vessels should be thoroughly cleaned and, if necessary, treated for animal and public health purposes, using chemicals approved by the Competent Authority. When cleaning is necessary during a journey, this should be carried out with the minimum of stress to the animals.

b) In some circumstances, animals may require pre-journey assembly. In these circumstances, the following points should be considered:

i) Pre-journey rest is necessary if the welfare of animals has become poor during the collection period because of the physical environment or the social behaviour of the animals.

ii) For animals such as pigs which are susceptible to motion sickness, and in order to reduce urine and faeces production during the journey, a species-specific short period of feed deprivation prior to loading is desirable.

SRB
Considering these are general recommendations, adding species-specific clarifies the need for additional information on the particular species. Otherwise “short” is too vague.

iii) When animals are to be provided with a novel diet or unfamiliar methods of supplying feed or water, they should be preconditioned.

c) Where an accredited animal handler or animal handler believes that there is a significant risk of disease among the animals to be loaded or significant doubt as to their fitness to travel, the animals should be examined by a veterinarian.

d) Pre-journey assembly / holding areas should be designed to:

i) securely contain the animals;

ii) maintain an environment safe from hazards, including predators and disease;

iii) protect animals from exposure to adverse weather conditions;

iv) allow for maintenance of social groups; and

v) allow for rest, watering and feeding.

2. Selection of compatible groups

Compatible groups should be selected before transport to avoid adverse animal welfare consequences. The following guidelines should be applied when assembling groups of animals:

a) animals of different species should not be mixed unless they are judged to be compatible;

b) animals of the same species can be mixed unless there is a significant likelihood of aggression; aggressive individuals should be segregated (recommendations for specific species are described
in detail in Article 3.7.2.11.). For some species, animals from different groups should not be mixed because poor welfare occurs unless they have established a social structure;

c) young or small animals may need to be separated from older or larger animals, with the exception of nursing mothers with young at foot;

d) animals with horns or antlers should not be mixed with animals lacking horns or antlers, unless judged to be compatible; and

e) animals reared together should be maintained as a group; animals with a strong social bond, such as a dam and offspring, should be transported together.

3. Fitness to travel

a) Animals should be inspected by a veterinarian or an accredited animal handler to assess fitness to travel. If its fitness to travel is in doubt, the animal should be examined by a veterinarian. It is the responsibility of a veterinarian to determine its ability to travel. Animals found unfit to travel should not be loaded onto a vessel.

b) Humane and effective arrangements should be made by the owner or agent for the handling and care of any animal rejected as unfit to travel.

c) Animals that are unfit to travel include, but may not be limited to:

   i) those that are sick, injured, weak, disabled or fatigued;

   ii) those that are unable to stand unaided or bear weight on each leg;

   iii) those that are blind in both eyes;

   iv) those that cannot be moved without causing them additional suffering;

   v) newborn with an unhealed navel;

   vi) females travelling without young which have given birth within the previous 48 hours;

   vii) pregnant animals which would be in the final 10% of their gestation period at the planned time of unloading.

SRB

I think that in this case it would be important to note that the list may not be exhaustive, so that certain animals that are not fit to travel but are not included in this list are not loaded since the guidelines did not include them.

d) Risks during transport can be reduced by selecting animals best suited to the conditions of travel and those that are acclimatised to expected weather conditions.

e) Animals at particular risk of suffering poor welfare during transport and which require special conditions (such as in the design of facilities and vehicles, and the length of the journey) and additional attention during transport, may include: Animals at particular risk of suffering poor welfare during transport and requiring better conditions and additional attention during transport may include:

   i) very large or obese individuals;
ii) very young or old animals;

iii) excitable or aggressive animals;

iv) animals subject to motion sickness;

v) animals which have had little contact with humans;

vi) females in the last third of pregnancy or in heavy lactation.

f) Hair or wool length should be considered in relation to the weather conditions expected during transport.

Article 3.7.2.7.

Loading

1. Competent supervision

a) Loading should be carefully planned as it has the potential to be the cause of poor welfare in transported animals.

b) Loading should be supervised by the Competent Authority and conducted by an accredited animal handler. Accredited animal handlers and animal handlers should ensure that animals are loaded quietly and without unnecessary noise, harassment or force, and that untrained assistants or spectators do not impede the process.

SRB

For sea transport, according to the responsibilities, the OIE is suggesting to have at least one accredited animal handler present during loading. This is in case of large vessel transport. Therefore, the previous section was reworded to reflect this.

2. Facilities

a) The facilities for loading, including the collecting area at the wharf, races and loading ramps should be designed and constructed to take into account of the needs and abilities of the animals with regard to dimensions, slopes, surfaces, absence of sharp projections, flooring, sides, etc.

b) Ventilation during loading and the journey should provide for fresh air, and the removal of excessive heat, humidity and noxious fumes (such as ammonia and carbon monoxide). Under warm and hot conditions, ventilation should allow for the adequate convective cooling of each animal. In some instances, adequate ventilation can be achieved by increasing the space allowance for animals.

c) Loading facilities should be properly illuminated to allow the animals to be easily inspected by the accredited animal handlers and animal handlers, and to allow the animals’ ease of movement of animals at all times. Facilities should provide uniform lighting light levels directly over approaches to sorting pens, chutes, loading ramps, with brighter lighting light levels inside vehicles/containers, in order to minimise baulking. Dim lighting light levels may be advantageous for the catching of some animals. Artificial lighting may be required.

3. Goads and other aids

The following principles should apply:
a) Animals that have little or no room to move should not be subjected to physical force or goads and other aids which compel movement. Electric goads and prods should only be used in extreme cases and not on a routine basis to move animals. The use and the power output should be restricted to that necessary to assist movement of an animal and only when an animal has a clear path ahead to move. Goads and other aids should not be used repeatedly if the animal fails to respond or move. In such cases it should be investigated whether some physical or other impediment is preventing the animal from moving.

b) Such devices should be limited to battery-powered goads on the hindquarters of pigs and large ruminants, and never on sensitive areas such as the eyes, mouth, ears, anogenital region or belly. Such instruments should not be used on horses, sheep and goats of any age, or on calves or piglets.

c) Useful and permitted goads include panels, flags, plastic paddles, flappers (a length of cane with a short strap of leather or canvas attached), plastic bags and metallic rattles; they should be used in a manner sufficient to encourage and direct movement of the animals without causing undue stress.

d) Painful procedures (including whipping, tail twisting, use of nose twitches, pressure on eyes, ears or external genitalia), or the use of unsuitable goads or other aids which cause pain and suffering (including large sticks, sticks with sharp ends, lengths of metal piping, fencing wire or heavy leather belts), should not be used to move animals.

e) Shouting or yelling at animals or making loud noises (e.g., through the cracking of whips) to encourage them to move should not occur, as such actions may make the animals agitated, leading to crowding or falling.

f) The use of well trained dogs to help with the loading of some species may be acceptable.

g) Animals should be grasped or lifted in a manner which avoids pain or suffering and physical damage (e.g. bruising, fractures, dislocations). In the case of quadrupeds, manual lifting by a person should only be used in young animals or small species, and in a manner appropriate to the species; grasping or lifting such animals only by their wool, hair, feathers, feet, neck, ears, tails, head, horns, limbs causing pain or suffering should not be permitted, except in an emergency where animal welfare or human safety may otherwise be compromised.

h) Conscious animals should not be thrown, dragged or dropped.

i) Performance standards should be established in which numerical scoring is used to evaluate the use of such instruments, and to measure the percentage of animals moved with an electric instrument and the percentage of animals slipping or falling as a result of their usage. At a point in the slaughterhouse, the slaughterhouse should be investigated for faults in flooring, raceway design, lighting or handling, and these should be rectified to enable free movement of the animals without the need to use such instruments.

SRB

The previous section on goads has been harmonised between this Appendix and the Appendices on Land Transport and Slaughter. I ensured that the text is the same, except in a couple of instances where certain points did not apply for all sections. The suggestion is to deal with this section at the same time as the sections on goads in Land Transport and Slaughter.
Useful and permitted goads include panels, flags, plastic paddles, flappers (a length of cane with a short strap of leather or canvas attached), plastic bags and metallic rattles; they should be used in a manner sufficient to encourage and direct movement of the animals.

Painful procedures (including whipping, tail twisting, use of nose twitches, pressure on eyes, ears or external genitalia), or the use of unsuitable goads or other aids (including sticks with sharp ends, lengths of metal piping, fencing wire or heavy leather belts), should not be used to move animals.

The use of goads which administer electric shocks should be discouraged, and restricted to that necessary to assist movement of the animal. Such use should be limited to battery powered goads on the hindquarters of pigs and large ruminants, and never on sensitive areas such as the eyes, mouth, ears, anogenital region or belly. Such instruments should not be used on horses, sheep and goats of any age, or on calves or piglets.

Shouting or yelling at animals or making loud noises (e.g., through the cracking of whips) to encourage them to move should not occur, as such actions may make the animals agitated, leading to crowding or falling.

The use of well trained dogs to help with the loading of some species may be acceptable.

Manual lifting is permissible for young animals that may have difficulty negotiating ramps, but the lifting of animals by body parts such as their tail, head, horns, ears, limbs, wool or hair should not be permitted. The throwing or dropping of animals should not be permitted.

Travel

1. General considerations
   a) Accredited animal handlers and animal handlers should check the consignment immediately before departure to ensure that the animals have been loaded according to the load plan. Each consignment should be checked again within 12 hours.
   b) Adjustments should be made to the stocking density as appropriate during the journey.
   c) Each pen of animals should be observed on a daily basis for normal behaviour, health and welfare, and the correct operation of ventilation, watering and feeding systems. There should also be a night patrol. Any necessary corrective action should be undertaken promptly.
   d) Adequate access to suitable feed and water should be ensured for all animals in each pen.

2. Sick and or injured animals
   a) Sick and or injured animals should be segregated if possible.
   b) Sick and or injured animals should be appropriately treated or humanely killed, in accordance with a predetermined emergency response plan (Article 3.7.2.4.). Veterinary advice should be sought if necessary. All drugs and products should be used in accordance with the manufacturer's or veterinarian's recommendations.

The sentence on drugs and products as it is written now, allows for any person to administer drugs as long as they follow the recommendations by the manufacturer. This should not be the case.
c) A record of treatments carried out and their outcomes should be kept.

d) When euthanasia is necessary, the person responsible for the animals, the veterinarian or the accredited animal handler, must ensure that it is carried out humanely. Assistance should be sought from a veterinarian or other person(s) competent in euthanasia procedures. Recommendations for specific species are described in Appendix 3.7.6. on humane killing of animals for disease control purposes.

SRB

Considering we are dealing with sea transport and the idea is that we can have at least one accredited animal handler per vessel, and the accredited animal handler should be certified in euthanasia. In case a veterinarian is present, the euthanasia can obviously be performed by a veterinarian as well. Also, euthanasia means humane killing, therefore it may be redundant to ensure that euthanasia is performed humanely? Maybe euthanasia should be incorporated in the definitions.

Article 3.7.2.9.

**Unloading and post-journey handling**

1. **General considerations**

   a) The required facilities and the principles of animal handling detailed in Article 3.7.2.7. apply equally to unloading, but consideration should be given to the likelihood that the animals will be fatigued.

   b) Unloading should be carefully planned as it has the potential to be the cause of poor welfare in transported animals.

   c) A livestock vessel should have priority attention when arriving in port and have priority access to a berth with suitable unloading facilities. As soon as possible after the ship's arrival at the port and acceptance of the consignment by the Competent Authority, animals should be unloaded into appropriate facilities.

   d) The accompanying veterinary certificate and other documents should meet the requirements of the importing country. Veterinary inspections should be completed as quickly as possible.

   e) Unloading should be supervised by the Competent Authority and conducted by via an accredited animal handler. The accredited animal handlers and animal handlers should ensure that animals are unloaded as soon as possible after arrival but sufficient time should be allowed for unloading to proceed quietly and without unnecessary noise, harassment or force, and that untrained assistants or spectators do not impede the process.

SRB

For sea transport, according to the responsibilities, the OIE is suggesting to have at least one accredited animal handler present during unloading. This is in case of large vessel transport. Therefore, the previous section was reworded to reflect this.

2. **Facilities**

   a) The facilities for unloading including the collecting area at the wharf, races and unloading ramps should be designed and constructed to take into account of the needs and abilities of the animals with regard to dimensions, slopes, surfaces, absence of sharp projections, flooring, sides, etc.
b) All unloading facilities should have sufficient lighting to allow the animals to be easily inspected by the accredited animal handlers, and to allow the ease of movement of animals at all times.

c) There should be facilities to provide animals with appropriate care and comfort, adequate space, access to quality feed and clean drinking water, and shelter from extreme weather conditions.

3. Sick and/or injured animals

   a) An animal that has become sick, injured or disabled during a journey should be appropriately treated or humanely killed (euthanised, see Appendix 3.7.6.). When necessary, veterinary advice of a veterinarian or accredited animal handler should be sought in the care and treatment of these animals.

   SRB

   Again the issue of who is competent enough to determine the fitness of animals and perform euthanasia if necessary.

   b) In some cases, where animals are non-ambulatory due to fatigue, injury or sickness, it may be in the best welfare interests of the animal to be treated or euthanised aboard the vessel.

   c) If unloading is in the best welfare interests of animals that are fatigued, injured or sick, there should be appropriate facilities and equipment for the humane unloading of such animals. These animals should be unloaded in a manner that causes the least amount of suffering. After unloading, separate pens and other appropriate facilities and treatments should be provided for sick or injured animals.

4. Cleaning and disinfection

   a) Vessels and containers used to carry the animals should be cleaned before re-use through the physical removal of manure and bedding, by scraping, washing and flushing vessels and containers with water until visibly clean. This should be followed by disinfection when there are concerns about disease transmission.

   b) Manure, litter and bedding should be disposed of in such a way as to prevent the transmission of disease and in compliance with all relevant health and environmental legislation.

   c) Where cleaning or disinfestation is necessary during travel, it should be carried out with the minimum of stress to the animals.

   Article 3.7.2.10.

Actions in the event of a refusal to allow the importation of a shipment

1. The welfare of the animals should be the first consideration in the event of a refusal to import.

2. When animals have been refused import, the Competent Authority of the importing country should make available suitable isolation facilities to allow the unloading of animals from a vessel and their secure holding, without posing a risk to the health of the national herd, pending resolution of the situation. In this situation, the priorities should be:

   a) The Competent Authority of the importing country should provide urgently in writing the reasons for the refusal.

   b) In the event of a refusal for animal health reasons, the Competent Authority of the importing country should provide urgent access to an OIE-appointed veterinarian(s) to assess the animals’ health
status of the animals with regard to the importing country’s concerns of the importing country, and the necessary facilities and approvals to expedite the required diagnostic testing.

c) The Competent Authority of the importing country should provide access to allow continued assessment of the ongoing health and welfare situation.

d) If the matter cannot be promptly resolved, the Competent Authority of the exporting and importing countries should call on the OIE to mediate.

3. In the event that the animals are required to remain on the vessel, the priorities should be:

a) The Competent Authority of the importing country should allow provisioning of the vessel with water and feed as necessary.

b) The Competent Authority of the importing country should provide urgently in writing the reasons for the refusal.

c) In the event of a refusal for animal health reasons, the Competent Authority of the importing country should provide urgent access to an OIE-appointed veterinarian(s) to assess the health status of the animals with regard to the importing country’s concerns of the importing country, and the necessary facilities and approvals to expedite the required diagnostic testing.

d) The Competent Authority of the importing country should provide access to allow continued assessment of the ongoing health and other aspects of the welfare of the animals, and the necessary actions to deal with any issues which arise.

e) If the matter cannot be urgently resolved, the Competent Authorities of the exporting and importing countries should call on the OIE to mediate.

4. The OIE should utilise its dispute settlement mechanism to identify a mutually agreed solution which will address the animal health and welfare issues in a timely manner.

Article 3.7.2.11.

Species specific issues

Cattle are social animals and may become agitated if they are singled out. Social order is usually established at about two years of age. When groups are mixed, social order has to be re-established and aggression may occur until a new order is established. Crowding of cattle may also increase aggression as the animals try to maintain personal space. Social behaviour varies with age, breed and sex; Bos indicus and B. indicus-cross animals are usually more temperamental than European breeds. Young bulls, when moved in groups, show a degree of playfulness (pushing and shoving) but become more aggressive and territorial with age. Adult bulls have a minimum personal space of six square metres. Cows with young calves can be very protective, and handling calves in the presence of their mothers can be dangerous.

Goats should be handled calmly and are more easily led or driven than if they are excited. When goats are moved, their gregarious tendencies should be exploited. Activities which frighten, injure or cause agitation to animals should be avoided. Bullying is particularly serious in goats. Housing strange goats together could result in fatalities, either through physical violence, or subordinate goats being refused access to food and water.
Sheep are sociable animals with good eyesight and tend to “flock together”, especially when they are agitated. They should be handled calmly and their tendency to follow each other should be exploited when they are being moved. Sheep may become agitated if they are singled out for attention and will strive to rejoin the group. Activities which frighten, injure or cause agitation to sheep should be avoided. They can negotiate steep ramps.

Pigs have poor eyesight, and may move reluctantly in strange surroundings. They benefit from well lit loading bays. Since they negotiate ramps with difficulty, these should be as level as possible and provided with secure footholds. Ideally, a hydraulic lift should be used for greater heights. Pigs also negotiate steps with difficulty. A good ‘rule-of-thumb’ is that no step should be higher than the pig’s front knee. Serious aggression may result if unfamiliar animals are mixed. Pigs are highly susceptible to heat stress.

Horses in this context include all solipeds, donkeys, mules, hinnies and zebra. They have good eyesight and a very wide angle of vision. They may have a history of loading resulting in good or bad experiences. Good training should result in easier loading, but some horses can prove difficult, especially if they are inexperienced or have associated loading with poor transport conditions. In these circumstances, two experienced animal handlers can load an animal by linking arms or using a strop below its rump. Blindfolding may even be considered. Ramps should be as shallow as possible. Steps are not usually a problem when horses mount a ramp, but they tend to jump a step when descending, so steps should be as low as possible. Horses benefit from being individually stalled, but may be transported in compatible groups. When horses are to travel in groups, their shoes should be removed.

SRB

“Two experienced animal handlers”, although there is no definition on who is an experienced animal handler, I do not think that this should be changed into an accredited animal handler, since it does not require the same type of knowledge.

Camelids in this context comprise llamas, alpacas, guanaco and vicuna. They have good eyesight and, like sheep, can negotiate steep slopes, though ramps should be as shallow as possible. They load most easily in a bunch as a single animal will strive to rejoin the others. Whilst they are usually docile, they have an unnerving habit of spitting in self-defence. During transport, they usually lie down. They frequently extend their front legs forward when lying, so gaps below partitions should be high enough so that their legs are not trapped when the animals rise.
APPENDIX 3.7.3.

GUIDELINES FOR THE TRANSPORT OF ANIMALS BY LAND

Preamble: These guidelines apply to the following live domesticated animals: cattle, buffalo, camels, sheep, goats, pigs, poultry and equines. They will also be largely applicable to some other animals (e.g., deer, other camelids and ratites). Wild, feral and partly domesticated animals may need different conditions.

Article 3.7.3.1.

The amount of time animals spend on a journey should be kept to the minimum.

Article 3.7.3.1. bis

1. Animal behaviour

*Accredited animal handlers* and *animal handlers* should be experienced and competent in handling and moving farm livestock and understand the behaviour patterns of animals and the underlying principles necessary to carry out their tasks.

The behaviour of individual animals or groups of animals will vary, depending on their breed, sex, temperament and age and the way in which they have been reared and handled. Despite these differences, the following behaviour patterns which are always present to some degree in domestic animals, should be taken into consideration in handling and moving the animals.

Most domestic livestock are kept in herds and follow a leader by instinct.

Animals which are likely to be hostile to each other in a group situation should not be mixed.

The desire of some animals to control their personal space should be taken into account in designing loading and unloading facilities, transport vessels and containers.

Domestic animals will try to escape if any person approaches closer than a certain distance. This critical distance, which defines the flight zone, varies among species and individuals of the same species, and depends upon previous contact with humans. Animals reared in close proximity to humans (i.e., tame) have a smaller flight zone, whereas those kept in free range or extensive systems may have flight zones which may vary from one metre to many metres. *Accredited animal handlers* and/or *animal handlers* should avoid sudden penetration of the flight zone which may cause a panic reaction which could lead to aggression or attempted escape.

SRB

It is more appropriate to say “any person” considering that *animal handler* may not be the only one who approaches the animal.

In this text, zone should not be italicised.

Tame animals may not necessarily have small flight zone, but smaller than those that were not tamed.

An example of a flight zone (cattle)
Accredited animal handlers and animal handlers should use the point of balance at the animal’s shoulder to move animals, adopting a position behind the point of balance to move an animal forward and in front of the point of balance to move it backward.

Domestic animals have wide-angle vision but only have limited forward binocular vision and poor perception of depth. This means that they can detect objects and movements beside and behind them, but can only judge distances directly ahead.

Although all domestic animals have a highly sensitive sense of smell, they may react differently to the smells encountered during travel. Smells which cause fear or other negative responses should be taken into consideration when managing animals.

Domestic animals can hear over a greater range of frequencies than humans and are more sensitive to higher frequencies. They tend to be alarmed by constant loud noise and by sudden noises, which may cause them to panic. Sensitivity to such noises should also be taken into account when handling animals.
2. Distractions and their removal

Distractions that may cause approaching animals to stop, baulk or turn back should be designed out from new loading and unloading facilities or removed from existing ones. Below are examples of common distractions and methods for eliminating them:

a) reflections on shiny metal or wet floors - move a lamp or change lighting;

b) dark entrances - illuminate with indirect lighting which does not shine directly into the eyes of approaching animals;

c) animals seeing moving people or equipment up ahead - install solid sides on chutes and races or install shields;

d) chains or other loose objects hanging in chutes or on fences - remove them;

e) uneven floors or a sudden drop in floor levels – avoid uneven floor surfaces or install a solid false floor to provide an illusion of a solid and continuous walking surface;

f) sounds of air hissing from pneumatic equipment - install silencers or use hydraulic equipment or vent high pressure to the external environment using flexible hosing;

g) clanging and banging of metal objects - install rubber stops on gates and other devices to reduce metal to metal contact;

h) air currents from fans or air curtains blowing into the face of animals - redirect or reposition equipment.

Article 3.7.3.2.

Responsibilities

Once the decision to transport the animals has been made, the welfare of the animals during their journey is the paramount consideration and is the joint responsibility of all people involved. The individual responsibilities of those persons involved being will be described in more detail in this Article.

The roles of each of those responsible are defined below:

1. The owners and managers of the animals are responsible for the general health of the animals and their fitness for the journey, and for their overall welfare during the journey. They are also responsible for ensuring compliance with any required veterinary or other certification, and for the presence during the journey of at least one animal handler competent for the species being transported, with the authority to take prompt action. They are also responsible for ensuring that equipment and veterinary assistance are provided as appropriate for the species and journey. These responsibilities should apply regardless of whether duties are subcontracted to other parties during transport.

1. The owners and managers of the animals are responsible for:

a) the general health, overall welfare and fitness of the animals for the journey;

b) ensuring compliance with any required veterinary or other certification;

c) the presence of an animal handler competent for the species being transported during the journey with the authority to take prompt action; in case of transport by individual trucks, the truck driver may be the sole animal handler during the journey;
d) the presence of at least one *accredited animal handler* and an adequate number of *animal handlers* during loading and unloading.

e) ensuring that equipment and veterinary assistance are provided as appropriate for the species and the journey.

2. Business agents or buying/selling agents have a joint responsibility with owners for the selection of animals that are fit to travel. They have a joint responsibility with market owners and managers of facilities at the start and at the end of the journey for the availability of suitable facilities for the assembly, loading, transport, unloading and holding of animals, including for any stops at resting points during the journey and for emergencies.

2. Business agents or buying/selling agents are responsible for:

a) selection of animals that are fit to travel;

b) availability of suitable facilities at the start and at the end of the journey for the assembly, loading, transport, unloading and holding of animals, including for any stops at resting points during the journey and for emergencies.

3. *Accredited animal handlers and animal handlers* are responsible for the humane handling and care of the animals, especially during loading and unloading, and for maintaining a journey log. To carry out their responsibilities, they should have the authority to take prompt action. In the absence of a separate *accredited animal handler* or *animal handler*, the driver is the *animal handler*. The driver may also be an accredited animal handler if an appropriate certification was obtained from the Competent Authority.

3. *Accredited animal handlers* are responsible for:

a) humane handling of animals especially during loading and unloading;

b) maintaining a journey log;

c) possessing authority to take prompt action.

4. In absence of a separate *accredited animal handler* or an *animal handler* during the journey via individual trucks, the truck driver is the *animal handler*. The driver may also be an accredited animal handler if an appropriate certification was obtained from the Competent Authority.

5. *Animal handlers* are responsible for:

(under study)

6. Transport Shipping companies, vehicle owners and drivers are responsible for planning the journey to ensure the care of the animals, in particular they are responsible for:

a) transport companies and vehicle owners are responsible for choosing appropriate vehicles for the species transported and the journey;

b) and ensuring that properly trained staff at least one *accredited animal handler* and adequate number of *animal handlers* are available for loading/unloading of animals;

c) ensuring adequate competency of the driver in matters of animal welfare for the species being transported, in case a separate *animal handler* is not assigned to the truck;
d) transport companies and vehicle owners are responsible for developing and keeping up to date contingency plans to address emergencies (including adverse weather conditions) and minimise stress during transport;

e) transport companies and vehicle owners are responsible for producing a journey plan which includes a loading plan, journey duration, itinerary and location of resting places;

f) drivers are responsible for loading only those animals which are fit to travel, for their correct loading into the vehicle and their inspection during the journey, and for appropriate responses to problems arising. If its fitness to travel is in doubt, the animal should be examined by a veterinarian in accordance with point 5 a) of Article 3.7.3.6;

g) welfare of the animals during the actual transport.

7. Managers of facilities at the start and at the end of the journey and at resting points are responsible for:

a) providing suitable premises for loading, unloading and securely holding the animals, with water and feed when required, until further transport, sale or other use (including rearing or slaughter);

b) providing an adequate number of competent animal handlers to load, unload, drive and hold animals in a manner that causes minimum stress and injury. In absence of a separate accredited animal handler or animal handler during the journey itself, the driver is the animal handler. The driver may also be an accredited animal handler if an appropriate certification was obtained from the Competent Authority;

c) minimising the opportunities for disease transmission;

d) providing appropriate facilities, with water and feed when required;

e) providing appropriate facilities for emergencies;

f) providing facilities for washing and disinfecting vehicles after unloading;

g) providing facilities and veterinarians or accredited animal handlers capable of euthanising animals when required, providing facilities and competent staff to allow the humane killing of animals when required;

SRB

Again the issue of who is capable of performing euthanasia. Considering that during travel by individual trucks, the driver may be the only animal handler present, it may be necessary that the driver is trained and competent in performing euthanasia.

b) ensuring proper rest times and minimal delay during stops.

6. The responsibilities of Competent Authorities include:

a) establishing minimum standards for animal welfare, including requirements for inspection of animals before, during and after their travel, defining ‘fitness to travel’ and appropriate certification and record keeping;

b) setting standards for facilities, containers and vehicles for the transport of animals;

c) setting standards for the competence of accredited animal handlers, animal handlers, drivers and managers of facilities in relevant issues in animal welfare;
d) ensuring appropriate awareness and training of accredited animal handlers, animal handlers, drivers and managers of facilities in relevant issues in animal welfare;

e) implementation of the standards, including through accreditation of / interaction with other organisations;

f) monitoring and evaluating the effectiveness of standards of health and other aspects of welfare;

g) monitoring and evaluating the use of veterinary medications;

h) expediting the passage of animal consignments at frontiers give animal consignments priority at frontiers in order to allow them to pass without unnecessary delay.

7. All individuals, including veterinarians, involved in transporting animals and the associated handling procedures should receive appropriate training and be competent to meet their responsibilities.

8. The receiving Competent Authority should report back to the sending Competent Authority on significant animal welfare problems which occurred during the journey.

Article 3.7.3.3.

Competence

1. All people responsible for animals during journeys, should be competent according to their responsibilities listed in Article 3.7.3.2. Competence may be gained through formal training and/or practical experience. Competence in areas other than animal welfare would need to be addressed separately.

2. The competence of accredited animal handlers should be demonstrated through a current certificate from the Competent Authority or an independent body, accredited by the Competent Authority. The certificate should be in one of the OIE official languages if the international transport of animals is involved.

3. The assessment of the competence of accredited animal handlers should at a minimum address knowledge, and ability to apply that knowledge, in the following areas:

   a) planning a journey, including appropriate space allowance, and feed, water and ventilation requirements;

   b) responsibilities for animals during the journey, including loading and unloading;

   c) sources of advice and assistance;

   d) animal behaviour, general signs of disease, and indicators of poor animal welfare such as stress, pain and fatigue, and their alleviation;

   e) assessment of fitness to travel. If fitness to travel is in doubt, the animal should be examined by a veterinarian;

   f) relevant authorities and applicable transport regulations, and associated documentation requirements;

   g) general disease prevention procedures, including cleaning and disinfection;

   h) appropriate methods of animal handling during transport and associated activities such as assembling, loading, and unloading;
i) methods of inspecting animals, managing situations frequently encountered during transport such as adverse weather conditions, and dealing with emergencies, including euthanasia;

j) species-specific aspects and age-specific aspects of animal handling and care, including feeding, watering and inspection; and

k) maintaining a journey log and other records.

4. The assessment of competence of animal handlers should at a minimum address knowledge, and ability to apply that knowledge, in the following areas:

a) responsibilities for animals during the journey, including loading and unloading;

b) sources of advice and assistance;

c) animal behaviour, general signs of disease, and indicators of poor animal welfare such as stress, pain and fatigue, and their alleviation;

d) general disease prevention procedures, including cleaning and disinfection;

e) appropriate methods of animal handling during transport and associated activities such as assembling, loading, and unloading;

f) methods of inspecting animals, managing situations frequently encountered during transport such as adverse weather conditions;

g) during the journey when a veterinarian or an accredited animal handler may not be present, the animal handler should be capable of performing euthanasia if necessary (under study);

SRB
This is an issue that arises in cases the driver is the sole animal handler aboard. One of the suggestions is to leave it up to the Competent Authority to deal with this issue, since, for example; in some countries the driver could call the police who have the means and the training for animal euthanasia. The concern of allowing the driver to perform euthanasia, even if instructions were given, is that then it defeats the purpose of having accredited animal handlers in the first place.

b) species-specific aspects and age-specific aspects of animal handling and care, including feeding, watering and inspection; and

i) maintaining a journey log and other records.

5. The competence of the driver should be at the same level as that of an animal handler in case a separate animal handler is not present.

Article 3.7.3.4.

Planning the journey

1. General considerations

a) Adequate planning is a key factor affecting the welfare of animals during a journey.

b) Before the journey starts, plans should be made in relation to:
i) preparation of animals for the journey;

ii) choice of road, or rail; roll-on roll-off vessels or containers;

iii) nature and duration of the journey;

iv) vehicle/container design and maintenance, including roll-on roll-off vessels;

v) required documentation;

vi) space allowance;

vii) rest, water and feed;

viii) observation of animals en route;

ix) control of disease; and

x) emergency response procedures;

xi) forecast weather conditions (e.g., conditions being too hot or too cold to travel during certain periods of the day);

xii) transfer time when changing mode of transport, and

xiii) waiting time at frontiers and inspection points.

c) Regulations concerning drivers (for example, maximum driving periods) should be harmonised with maximum transport journey intervals appropriate for the species based on sound science.

2. Preparation of animals for the journey

a) When animals are to be provided with a novel diet or method of water provision during transport, an adequate period of adaptation should be planned. For animals such as pigs which are susceptible to motion sickness, and in order to reduce urine and faeces production during the journey, a species-specific short period of feed deprivation prior to loading may be desirable.

SRB
Species-specific suggests that there is a specific duration of the “short period” for different species. This issue should be further addressed by the ad hoc committee.

b) Animals more accustomed to contact with humans and with being handled are likely to be less fearful of being loaded and transported. People handling animals should handle and load animals in a manner that reduces their fearfulness and improves their approachability.

SRB
Presumably people handling the animals are the animal handlers?

c) Behaviour-modifying compounds (such as tranquillisers) or other medication should not be used routinely during transport. Such compounds should only be administered when a problem exists in an individual animal, and should be administered by a veterinarian or other person who has been instructed in their use by a veterinarian, such as an accredited animal handler or an animal handler.
3. **Nature and duration of the journey**

The maximum duration of a journey should be determined according to factors that determine the overall welfare of animals, such as:

a) the ability of the animals to cope with the stress of transport (such as very young, old, lactating or pregnant animals);

b) the animals' previous transport experience of the animals;

c) the likely onset of fatigue;

d) the need for special attention;

e) the need for feed and water;

f) the increased susceptibility to injury and disease;

g) space allowance, vehicle design, road conditions and driving quality;

h) weather conditions;

i) vehicle type used, terrain to be traversed, road surfaces and quality, skill and experience of the driver.

4. **Vehicle and container design and maintenance**

a) Vehicles and containers used for the transport of animals should be designed, constructed and fitted as appropriate to the species, size and weight of the animals to be transported. Special attention should be paid to the avoidance of injury to animals through the use of secure smooth fittings free from sharp protrusions. The avoidance of injury to drivers, accredited animal handlers and animal handlers while carrying out their responsibilities should be emphasised.

b) Vehicles and containers should be designed with the structures necessary to provide protection from adverse weather conditions and to minimise the opportunity for animals to escape.

c) In order to minimise the likelihood of the spread of infectious disease during transport, vehicles and containers should be designed to permit thorough cleaning and disinfection, and the containment of faeces and urine during a journey.

d) Vehicles and containers should be maintained in good mechanical and structural condition.

e) Vehicles and containers should have adequate ventilation to meet variations in climate and the thermo-regulatory needs of the animal species being transported; the ventilation system (natural or mechanical) should be effective when the vehicle is stationary.

f) Vehicles should be designed so that the faeces or urine from animals on upper levels do not soil animals on lower levels, nor their feed and water.

g) When vehicles are carried on board ferries, facilities for adequately securing them should be available.

h) If feeding or watering while the vehicle is moving is required, adequate facilities on the vehicle should be available.
i) When appropriate, suitable bedding should be added to vehicle floors to assist absorption of urine and faeces, to minimise slipping by animals, and protect animals (especially young animals) from hard flooring surfaces and adverse weather conditions.

5. **Special provisions for transport in vehicles (road and rail) on roll-on/roll-off vessels or for containers**

   a) *Vehicles* and *containers* should be equipped with a sufficient number of adequately designed, positioned and maintained securing points enabling them to be securely fastened to the *vessel*.

   b) *Vehicles* and *containers* should be secured to the *vessel* before the start of the sea journey to prevent them being displaced by the motion of the *vessel*.

   c) Roll-on/roll-off *vessels* should have adequate ventilation to meet variations in climate and the thermo-regulatory needs of the animal species being transported, especially where the animals are transported in a secondary *vehicle/container* on enclosed decks.

6. **Space allowance**

   a) The number of animals which should be transported on a *vehicle* or in a *container* and their allocation to compartments should be determined before loading.

   b) The space required on a *vehicle* or in a *container* depends upon whether or not the animals need to lie down (for example, pigs, camels and poultry), or to stand (horses). Animals which will need to lie down often stand when first loaded or when the *vehicle* is driven with too much lateral movement or sudden braking.

   c) When animals lie down, they should all be able to adopt a normal lying posture which allows necessary thermoregulation.

   d) When animals are standing, they should have sufficient space to adopt a balanced position as appropriate to the climate and species transported (Article Appendix XXX).

   e) The amount of headroom necessary depends on the species of animal. Each animal should be able to assume its natural position for transport (including during loading and unloading) without coming into contact with the roof or upper deck of the *vehicle*.

   f) Calculations for the space allowance for each animal should be carried out using the figures given in Appendix XXX or, in their absence, in a relevant national or international document. The number and size of pens on the *vehicle* should be varied to where possible accommodate already established groups of animals while avoiding group sizes which are too large.

   g) Other factors which may influence space allowance include:

   i) *vehicle/container* design;

   ii) length of *journey*;

   iii) need to provide feed and water on the *vehicle*;

   iv) quality of roads;

   v) expected weather conditions.

7. **Rest, water and feed**
a) There should be planning for the availability of suitable water and feed. Suitable water and feed should be available as appropriate and needed for the species, age, and condition of the animals, as well as the duration of the journey, climatic conditions, etc.

b) There should be planning for the resting of animals. Animals should be allowed to rest at resting points at appropriate intervals during the journey. The type of transport, the age and species of the animals being transported, and climatic conditions should determine the frequency of rest stops and whether the animals should be unloaded. Water and feed should be available during rest stops.

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**SRB**

The other text suggests what should be happening, not that there should be planning for these things to happen. Therefore, by re-writing the above text, I have just harmonised it with the rest of the document.

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8. **Ability to observe animals during the journey**

   a) Animals should be positioned to enable each animal to be observed regularly during the journey to ensure their safety and good welfare.

   b) If the animals are in crates or on multi-tiered vehicles which do not allow free access for observation, for example where the roof of the tier is too low (i.e. less than 1.3 m), animals cannot be inspected adequately, and serious injury or disease could go undetected. In these circumstances, a shorter journey duration should be allowed, and the maximum duration will vary according to the rate at which problems arise in the species and under the conditions of transport.

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**SRB**

“a shorter journey duration” is not specific. It should maybe be addressed by the ad hoc committee.

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9. **Control of disease**

   As animal transport is often a significant factor in the spread of infectious diseases, journey planning should take the following into account:

   a) Mixing of animals from different sources in a single consignment should be minimised.

   b) Contact at resting points between animals from different sources should be avoided.

   c) When possible, animals should be vaccinated against diseases to which they are likely to be exposed at their destination.

   d) Medications used prophylactically or therapeutically should be approved by the Veterinary Authority of the importing country and should only be administered by a veterinarian or other person who has been instructed in their use by a veterinarian, such as an accredited animal handler or an animal handler.

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10. **Emergency response procedures**

   There should be an emergency management plan that identifies the important adverse events that may be encountered during the journey, the procedures for managing each event and the action to be taken in an emergency. For each important event, the plan should document the actions to be undertaken and the responsibilities of all parties involved, including communications and record keeping.
11. Other considerations

a) Extreme weather conditions are hazardous for animals undergoing transport and require appropriate vehicle design to minimise risks. Special precautions should be taken for animals that have not been acclimatised or which are unsuited to either hot or cold conditions. In some extreme conditions of heat or cold, animals should not be transported at all.

b) In some circumstances, transportation during the night may reduce thermal stress or the adverse effects of other external stimuli.

Article 3.7.3.5.

Documentation

1. Animals should not be loaded until the documentation required to that point is complete.

2. The documentation accompanying the consignment should include:
   a) journey travel plan (including and an emergency management plan);
   b) date, time, and place of loading and unloading;
   c) veterinary certification, when required;
   d) driver’s competencies of the driver;
   e) identities of the animal identification transported to allow traceback animal traceability of individual animals to the premises of departure and, where possible, to the premises of origin;

SRB

Animal identification and animal traceability are clearly defined by the OIE and may be more appropriate terms to use in this case.

f) details of any animals considered at risk of suffering poor welfare during transport (Article 3.7.3.6.);

g) documentation of the period of rest, and access to feed and water, prior to the journey;

h) stocking density estimate for each load in the consignment;

i) the journey log - daily record of inspection and important events, including records of morbidity and mortality and actions taken, climatic conditions, rest stops, travel time and distance, feed and water offered and estimates of consumption, medication provided, and mechanical defects.

3. When veterinary certification is required to accompany consignments of animals, it should address:

a) fitness of animals to travel;

b) animal identification (description, number, etc.);

c) health status including any tests, treatments and vaccinations carried out;

d) when required, details of disinfection carried out.

At the time of certification, the veterinarian should notify the accredited animal handler, animal handler or the driver of any factors affecting the animals’ fitness of animals to travel for a particular journey.
**Pre-journey period**

1. **General considerations**

   a) Pre-journey rest is necessary if the welfare of animals has become poor during the collection period because of the physical environment or the social behaviour of the animals.

   b) Pre-journey assembly/holding areas should be designed to:

      i) securely hold the animals;

      ii) maintain a safe environment from hazards, including predators and disease;

      iii) protect animals from exposure to severe weather conditions;

      iv) allow for maintenance of social groups; and

      v) allow for rest, and appropriate water and feed; and

      vi) allow sufficient space for all animals to lie down comfortably and move around freely.

   c) Consideration should be given to an animal's the previous transport experience, training and conditioning of the animals, if known, as these may reduce fear and stress in animals.

   d) Feed and water should be provided pre-journey if the journey duration is greater than the normal inter-feeding and drinking interval for the animal. Recommendations for specific species are described in detail in Article 3.7.3.11.

   e) When animals are to be provided with a novel diet or method of feed or water provision during the journey an adequate period of adaptation should be planned.

   f) Before each journey, vehicles and containers should be thoroughly cleaned and, if necessary, treated for animal health and public health purposes, using methods approved by the Competent Authority. When cleaning is necessary during a journey, this should be carried out with the minimum of stress to the animals.

   g) Where an accredited animal handler or animal handler believes that there is a significant risk of disease among the animals to be loaded or significant doubt as to their fitness to travel, the animals should be examined by a veterinarian.

2. **Selection of compatible groups**

   Compatible groups should be selected before transport to avoid adverse animal welfare consequences. The following guidelines should be applied when assembling groups of animals:

   a) Animals reared together should be maintained as a group; animals with a strong social bond, such as a dam and offspring, should be transported together.

   b) Animals of the same species can be mixed unless there is a significant likelihood of aggression; aggressive individuals should be segregated (recommendations for specific species are described in detail in Article 3.7.3.11.). For some species, animals from different groups should not be mixed because poor welfare occurs unless they have established a social structure.

   c) Young or small animals should be separated from older or larger animals, with the exception of nursing mothers with young at foot.
d) Animals with horns or antlers should not be mixed with animals lacking horns or antlers unless judged to be compatible.

e) Animals of different species should not be mixed unless they are judged to be compatible.

3. Fitness to travel

a) Each animal should be inspected by a veterinarian or an accredited animal handler to assess fitness to travel. If its fitness to travel is in doubt, the animal should be examined by a veterinarian. Animals found unfit to travel should not be loaded onto a vehicle, except for transport to receive veterinary treatment.

b) Humane and effective arrangements should be made by the owner or agent for the handling and care of any animal rejected as unfit to travel.

c) Animals that are unfit to travel include, but may not be limited to:

i) those that are sick, injured, weak, disabled or fatigued;

ii) those that are unable to stand unaided and bear weight on each leg;

iii) those that are blind in both eyes;

iv) those that cannot be moved without causing them additional suffering;

v) newborn with an unhealed navel;

vi) pregnant animals which would be in the final 10% of their gestation period at the planned time of unloading.

vii) females travelling without young which have given birth within the previous 48 hours;

viii) those whose body condition would result in poor welfare because of the expected climatic conditions.

SRB

I think that in the section above it would be important to note that the list may not be exhaustive, so that certain animals that are not fit to travel but are not included in this list are not loaded since the guidelines did not include them.

d) Risks during transport can be reduced by selecting animals best suited to the conditions of travel and those that are acclimatised to expected weather conditions.

e) Animals ‘at risk’ at particular risk of suffering poor welfare during transport and which require special conditions (such as in the design of facilities and vehicles, and the length of the journey) and additional attention during transport, may include:

i) large or obese individuals;

ii) very young or old animals;

iii) excitable or aggressive animals;

iv) animals which have had little contact with humans;

v) animal subject to motion sickness;
vi) females in late pregnancy or heavy lactation, dam and offspring;

vii) animals with a history of exposure to stressors or pathogenic agents prior to transport.

4. Specific species requirements

Transport procedures should be able to take account of variations in the behaviour of the species. Flight zones, social interactions and other behaviour vary significantly among species and even within species. Facilities and handling procedures that are successful with one species are often ineffective or dangerous with another.

Recommendations for specific species are described in detail in Article 3.7.3.11.

Article 3.7.3.7.

Loading

1. Competent supervision

a) Loading should be carefully planned as it has the potential to be the cause of poor welfare in transported animals.

b) Loading should be supervised by a veterinarian or an accredited animal handler and/or conducted by accredited animal handlers or animal handlers. These animal handlers should ensure that the animals are loaded quietly and without unnecessary noise, harassment or force, and that untrained assistants or spectators do not impede the process.

c) In cases where animals are loaded onto individual trucks on a farm, the animal owner is responsible for ensuring the presence of a loading supervisor who is competent in the issues in animal welfare.

SRB

In the case of transport by individual trucks, a veterinarian or an accredited animal handler may not be present. Therefore, the responsibility of the owner/farmer should be to ensure that there is a competent individual supervising the loading.

c) When containers are loaded onto a vehicle, this should be carried out in such a way to avoid poor animal welfare.

2. Facilities

a) The facilities for loading including the collecting area, races and loading ramps should be designed and constructed to take into account the needs and abilities of the animals with regard to dimensions, slopes, surfaces, absence of sharp projections, flooring, etc.

b) Loading facilities should be properly illuminated to allow the animals to be observed by the accredited animal handlers and/or animal handler(s), and to allow the animals' ease of movement of the animals at all times. Facilities should provide uniform light levels directly over approaches to sorting pens, chutes, loading ramps, with brighter light levels inside vehicles/containers, in order to minimise baulking. Dim light levels may be advantageous for the catching of poultry and some other animals. Artificial lighting may be required.

c) Ventilation during loading and the journey should provide for fresh air, the removal of excessive heat, humidity and noxious fumes (such as ammonia and carbon monoxide), and the prevention of accumulations of ammonia and carbon dioxide. Under warm and hot conditions, ventilation
should allow for the adequate convective cooling of each animal. In some instances, adequate ventilation can be achieved by increasing the space allowance for animals.

3. **Goads and other aids**

   The following principles should apply:

   a) *Animals that have little or no room to move should not be subjected to physical force or goads and other aids which compel movement.* Electric goads and prods should only be used in extreme cases and not on a routine basis to move animals. The use and the power output should be restricted to that necessary to assist movement of an animal and only when an animal has a clear path ahead to move. Goads and other aids should not be used repeatedly if the animal fails to respond or move. In such cases it should be investigated whether some physical or other impediment is preventing the animal from moving.

   b) *Such devices should be limited to battery-powered goads on the hindquarters of pigs and large ruminants, and never on sensitive areas such as the eyes, mouth, ears, anogenital region or belly.* Such instruments should not be used on horses, sheep and goats of any age, or on calves or piglets.

   c) *Useful and permitted goads include panels, flags, plastic paddles, flappers (a length of cane with a short strap of leather or canvas attached), plastic bags and metallic rattles; they should be used in a manner sufficient to encourage and direct movement of the animals without causing undue stress;*

   d) *Painful procedures (including whipping, tail twisting, use of nose twitches, pressure on eyes, ears or external genitalia), or the use of unsuitable goads or other aids which cause pain and suffering (including large sticks, sticks with sharp ends, lengths of metal piping, fencing wire or heavy leather belts), should not be used to move animals.*

   e) *Shouting or yelling at animals or making loud noises (e.g., through the cracking of whips) to encourage them to move should not occur, as such actions may make the animals agitated, leading to crowding or falling.*

   f) *The use of well trained dogs to help with the loading of some species may be acceptable.*

   g) *Animals should be grasped or lifted in a manner which avoids pain or suffering and physical damage (e.g. bruising, fractures, dislocations). In the case of quadrupeds, manual lifting by a person should only be used in young animals or small species, and in a manner appropriate to the species; grasping or lifting such animals only by their wool, hair, feathers, feet, neck, ears, or tails, head, horns, limbs causing pain or suffering should not be permitted, except in an emergency where animal welfare or human safety may otherwise be compromised.*

   h) *Conscious animals should not be thrown, dragged or dropped.*

   i) *Performance standards should be established in which numerical scoring is used to evaluate the use of such instruments, and to measure the percentage of animals moved with an electric instrument and the percentage of animals slipping or falling as a result of their usage.* at a point in the slaughterhouse, the slaughterhouse should be investigated for faults in flooring, raceway design, lighting or handling, and these should be rectified to enable free movement of the animals without the need to use such instruments.

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**SRB**

The previous section on goads has been harmonised between this Appendix and the Appendices on Sea Transport and Slaughter. I ensured that the text is the same, except in a couple of instances
where certain points did not apply for all sections. The suggestion is to deal with this section at
the same time as the sections on goads in Sea Transport and Slaughter.

3. Goads and other aids

The following principles should apply:

a) Animals which have little or no room to move should not be subjected to physical force or
goads and other aids which compel movement. Goads and other aids should not be used
repeatedly if the animal fails to respond or move. In such cases it should be investigated
whether some physical or other impediment is preventing the animal from moving.

b) Useful and permitted aids include panels, flags, plastic paddles, flappers (a length of cane with a
short strap of leather or canvas attached), plastic bags and metallic rattles; they should be used in
a manner sufficient to encourage and direct movement of the animals.

c) Painful procedures (including whipping, tail twisting, use of nose twitches, pressure on eyes, ears
or external genitalia), or the use of unsuitable goads or other aids (including sticks with sharp
ends, lengths of metal piping, fencing wire or heavy leather belts), should not be used to move
animals.

d) The use of goads which administer electric shocks should be discouraged, and restricted to that
necessary to assist movement of the animal. Such use should be limited to battery powered
goads on the hindquarters of adult pigs and cattle, and never on sensitive areas such as the eyes,
mouth, ears, anogenital region or belly. Such instruments should not be used on other animals.

e) The use of well trained dogs to help with the loading of some species may be acceptable.

f) The throwing or dropping of animals, or their lifting or dragging by body parts such as their tail,
head, horns, ears, limbs, wool, hair or feathers, should not be permitted. The manual lifting of
small animals is permissible.

g) Shouting or yelling at animals or making loud noises e.g. through the cracking of whips to
encourage them to move should not occur, as such actions may make the animals agitated,
leading to crowding or falling.

Travel

1. General considerations

a) Accredited animal handlers/animal handlers and/or drivers should check the load immediately before
departure to ensure that the animals have been properly loaded. Early in the trip, the accredited
animal handler/animal handler or the driver should check the animals again and make appropriate
adjustments if necessary. Each load should be checked again early in the trip and adjustments
made as appropriate. From then on, periodic checks should be made by the accredited animal
handler/animal handler or the driver throughout the trip. Periodic checks should be made
throughout the trip.

b) Drivers should utilise smooth, defensive driving techniques, without sudden turns or stops, to
minimise uncontrolled movements of the animals.

2. Methods of restraining or containing animals

a) Methods of restraining animals should be appropriate to the species and age of animals involved
and the training of the individual animal.
b) Recommendations for specific species are described in detail in Article 3.7.3.11.

SRB

Whether restraining should be in italics, since the definition applies to restraint? Maybe use restraint instead to be consistent?

3. Regulating the environment within vehicles or containers

a) Animals should be protected against harm from hot or cold conditions during travel. Effective ventilation procedures for maintaining the animals’ environment within vehicles or containers will vary according to whether conditions are cold, hot and dry or hot and humid, but in all conditions a build-up of noxious gases should be prevented. Specific temperature and humidity parameters are described in detail in Appendix XXX.

b) The animals’ environment within vehicles or containers in hot and warm weather can be regulated by the flow of air produced by the movement of the vehicle. In warm and hot weather, the duration of journey stops should be minimised and vehicles should be parked under shade, with adequate and appropriate ventilation.

SRB

The previous comment does not seem to communicate well the point about appropriate ventilation while the vehicle is stationary. Consider revising.

c) To minimise slipping and soiling, and maintain a healthy environment, urine and faeces should be removed from floors when necessary and disposed of in such a way as to prevent the transmission of disease and in compliance with all relevant health and environmental legislation.

4. Sick, injured and or dead animals

a) A driver or Accredited animal handler/animal handler or the driver finding sick, injured or dead animals should act according to a predetermined emergency response plan.

b) If possible, Sick or injured animals should be segregated.

c) Ferries (roll-on roll-off) should have procedures to treat sick or injured animals during the journey.

d) In order to reduce the likelihood that animal transport will increase the spread of infectious disease, contact between transported animals, or the waste products of the transported animals, and other farm animals should be minimised.

e) During the journey, when disposal of a dead animal becomes necessary, this should be carried out in such a way as to prevent the transmission of disease and in compliance with all relevant health and environmental legislation.

f) When euthanasia is necessary, the driver or accredited animal handler/animal handler or the driver should ensure that it is carried out as quickly as possible and assistance should be sought from a veterinarian or other person(s) an accredited animal handler competent in humane euthanasia procedures. Recommendations for specific species are described in Appendix 3.7.6. on humane killing of animals for disease control purposes.

SRB

Again, who is responsible for euthanasia
5. Water and feed requirements
   a) If journey duration is such that feeding or watering is required or if the species requires feed or water throughout, access to suitable feed and water for all the animals (appropriate for their species and age) carried in the vehicle should be provided. There should be adequate space for all animals to move to the feed and water sources and due account taken of likely competition for feed.
   b) Recommendations for specific species are described in detail in Article 3.7.3.11.

6. Rest periods and conditions including hygiene
   a) Animals that are being transported should be rested at appropriate intervals during the journey and offered feed and water, either on the vehicle or, if necessary, unloaded into suitable facilities.
   b) Suitable facilities should be used en route, when resting requires the unloading of the animals. These facilities should meet the needs of the particular animal species and should allow access of all animals to feed and water.

   **SRB**
   Should rest point be considered to be a rest period? Consider revising for consistency.

7. In-transit observations
   a) Animals being transported by road should be observed soon after a journey is commenced and whenever the driver has a rest stop (with a maximum interval of 5 hours). After meal breaks and refuelling stops, the animals should be observed immediately prior to departure.
   b) Animals being transported by rail should be observed at each scheduled stop nearest to 5 hours since the last observation. The responsible rail transporter should monitor the progress of trains carrying animals and take all appropriate action to minimise delays.
   c) During stops, it should be ensured that the animals continue to be properly confined, have appropriate feed and water, and their physical condition is satisfactory.

   **Article 3.7.3.9.**

   **Unloading and post-journey handling**

   **SRB**
   Post-journey vs post-journey period? Should it be italicised?

1. General considerations
   a) The required facilities and the principles of animal handling detailed in Article 3.7.3.7. apply equally to unloading, but consideration should be given to the likelihood that the animals will be fatigued.
   b) Unloading should be supervised and/or conducted by a veterinarian or an accredited animal handler with knowledge and experience of the behavioural and physical characteristics of the species being unloaded. Animals should be unloaded from the vehicle into appropriate facilities as soon as possible after arrival at the destination but sufficient time should be allowed for unloading to proceed quietly and without unnecessary noise, harassment or force.
c) Facilities should provide all animals with appropriate care and comfort, adequate space and ventilation, access to feed (if appropriate) and water, and shelter from extreme weather conditions.

d) For details regarding the unloading of animals at a slaughterhouse, see Appendix 3.7.5. on slaughter of animals for human consumption.

2. Sick and/or injured animals

a) An animal that has become sick, injured or disabled during a journey should be appropriately treated or humanely killed (see Appendix 3.7.6. on humane killing of animals for disease control purposes). When necessary, veterinary advice should be sought in the care and treatment of these animals. In some cases, where animals are non-ambulatory due to fatigue, injury or sickness, it may be in the best welfare interests of the animal to be treated or euthanased aboard the vehicle.

b) At the destination, the animal handler or the driver during transit should ensure that responsibility for the welfare of sick, injured or disabled animals is transferred to a suitable person (veterinarian or an accredited animal handler).

c) If treatment or euthanasia is not possible aboard the vehicle, there should be appropriate facilities and equipment for the humane unloading of animals that are non-ambulatory due to fatigue, injury or sickness. These animals should be unloaded in a manner that causes the least amount of suffering. After unloading, separate pens and other appropriate facilities should be available for sick or injured animals.

d) Feed, if appropriate, and water should be available for each sick or injured animal.

3. Addressing disease risks

The following should be taken into account in addressing the greater risk of disease due to animal transport and the possible need for segregation of transported animals at the destination:

a) increased contact among animals, including those from different sources and with different disease histories;

b) increased shedding of pathogens and increased susceptibility to infection related to stress and impaired defences against disease, including immunosuppression;

c) exposure of animals to pathogens which may contaminate vehicles, resting points, markets, etc.

4. Cleaning and disinfection

a) Vehicles, crates, containers, etc. used to carry the animals should be cleaned before re-use through the physical removal of manure and bedding by scraping, washing and flushing vehicles and containers with water and detergent. This should be followed by disinfection when there are concerns about disease transmission.

b) Manure, litter, bedding and the bodies of any animals which die during the journey should be disposed of in such a way as to prevent the transmission of disease and in compliance with all relevant health and environmental legislation.

c) Establishments like livestock markets, slaughterhouses, resting sites, railway stations, etc. where animals are unloaded should be provided with appropriate areas for the cleaning and disinfection of vehicles.

d) Where disinfection is necessary, it should be carried out with the minimum stress to the animals.
Actions in the event of a refusal to allow the completion of the journey

1. The welfare of the animals should be the first consideration in the event of a refusal to allow the completion of the journey.

2. When the animals have been refused import, the Competent Authority of the importing country should make available suitable isolation facilities to allow the unloading of animals from a vehicle and their secure holding, without posing a risk to the health of national herd or flock, pending resolution of the situation. In this situation, the priorities should be:
   a) The Competent Authority of the importing country should provide urgently in writing the reasons for the refusal.
   b) In the event of a refusal for animal health reasons, the Competent Authority of the importing country should provide urgent access to a veterinarian, where possible an OIE veterinarian(s) appointed by the Director General, to assess the animals' health status with regard to the concerns of the importing country's concerns, and the necessary facilities and approvals to expedite the required diagnostic testing.
   c) The Competent Authority of the importing country should provide access to allow continued assessment of the health and other aspects of the welfare of the animals.
   d) If the matter cannot be promptly resolved, the Competent Authorities of the exporting and importing countries should call on the OIE to mediate.

3. In the event that a Competent Authority requires the animals to remain on the vehicle, the priorities should be:
   a) The Competent Authority should allow provisioning of the vehicle with water and feed as necessary.

   SRB
   Reprovisioning is not in the dictionary. Use provisioning.
   b) The Competent Authority should provide urgently in writing the reasons for the refusal.
   c) In the event of a refusal for animal health reasons, the Competent Authority should provide urgent access to an independent veterinarian(s) to assess the animals' health status, and the necessary facilities and approvals to expedite the required diagnostic testing.
   d) The Competent Authority should provide access to allow continued assessment of the health and other aspects of the welfare of the animals, and the necessary actions to deal with any animal issues which arise.

4. The OIE should utilise its dispute settlement mechanism to identify a mutually agreed solution which will address animal health and any other welfare issues in a timely manner.

   Article 3.7.3.11.

   Species specific issues

   (To be developed)
APPENDIX 3.7.5.

GUIDELINES FOR THE SLAUGHTER OF ANIMALS

Article 3.7.5.1.

General principles

1. **Object**

   These guidelines address the need to ensure the welfare of food animals during pre-slaughter and slaughter processes, until they are dead.

   These guidelines apply to the slaughter in slaughterhouses of the following domestic animals: cattle, buffalo, sheep, goats, deer, horses, pigs, ratites and poultry. Other animals, wherever they have been reared, and all animals slaughtered outside slaughterhouses should be managed to ensure that their transport, lairage, restraint and slaughter is carried out without causing undue stress to the animals; the principles underpinning these guidelines apply also to these animals.

   **SRB**

   The meaning of the previous paragraph is not clear. Consider revising.

   Lairage is defined by the OIE as a term that is used in the jargon of the slaughterhouses, but cannot be found in a dictionary. Perhaps it is safer to be consistent and use “lairage” throughout and not mix in lairaging.

2. **Personnel**

   Persons engaged in the unloading, moving, lairage, care, restraining, stunning, slaughter and bleeding of animals play an important role in the welfare of those animals. For this reason, there should be a sufficient number of personnel, who should be patient, considerate, competent and familiar with the guidelines outlined in the present Appendix and their application within the national context.

   Competence may be gained through formal training and/or practical experience. This competence should be demonstrated through a current certificate from the Competent Authority or from an independent body accredited by the Competent Authority.

   The management of the slaughterhouse and the Veterinary Services should ensure that slaughterhouse staff are competent and carry out their tasks in accordance with the principles of animal welfare.

   **SRB**

   The sentence is repeated twice, but the second one does not include competence, therefore I took the liberty to delete it.

3. **Animal behaviour**

   Accredited animal handlers and animal handler should be experienced and competent in handling and
moving farm livestock and understand the behaviour patterns of animals and the underlying principles necessary to carry out their tasks.

The behaviour of individual animals or groups of animals will vary, depending on their breed, sex, temperament and age and the way in which they have been reared and handled. Despite these differences, the following behaviour patterns which are always present to some degree in domestic animals, should be taken into consideration in handling and moving the animals.

Most domestic livestock are kept in herds and follow a leader by instinct.

Animals which are likely to be hostile to each other in a group situation should not be mixed at slaughterhouses.

The desire of some animals to control their personal space should be taken into account in designing facilities.

Domestic animals will try to escape if any person approaches closer than a certain distance. This critical distance, which defines the flight zone, varies among species and individuals of the same species, and depends upon previous contact with humans. Animals reared in close proximity to humans (i.e., tame) have a smaller flight zone, whereas those kept in free range or extensive systems may have flight zones which may vary from one metre to many metres. Accredited animal handlers and/or animal handlers should avoid sudden penetration of the flight zone which may cause a panic reaction which could lead to aggression or attempted escape.

SRB

It is more appropriate to say “any person” considering that animal handler may not be the only one who approaches the animal.

In this text, zone should not be italicised.

Tame animals may not necessarily have small flight zone, but smaller than those that were not tamed.

An example of a flight zone (cattle)

Animal handler movement pattern to move cattle forward
Accredited animal handlers and animal handlers should use the point of balance at the animal’s shoulder to move animals, adopting a position behind the point of balance to move an animal forward and in front of the point of balance to move it backward.

Domestic animals have wide-angle vision but only have limited forward binocular vision and poor perception of depth. This means that they can detect objects and movements beside and behind them, but can only judge distances directly ahead.

Although all domestic animals have a highly sensitive sense of smell, they react in different ways to the smells of slaughterhouses. Smells which cause fear or other negative responses should be taken into consideration when managing animals.

Domestic animals can hear over a greater range of frequencies than humans and are more sensitive to higher frequencies. They tend to be alarmed by constant loud noise and by sudden noises, which may cause them to panic. Sensitivity to such noises should also be taken into account when handling animals.

4. Distractions and their removal

Distractions that may cause approaching animals to stop, balk or turn back should be designed out from new facilities or removed from existing ones. Below are examples of common distractions and methods for eliminating them:

a) reflections on shiny metal or wet floors - move a lamp or change lighting;

b) dark entrances to chutes, races, stun boxes or conveyor restrainers - illuminate with indirect lighting which does not shine directly into the eyes of approaching animals;

c) animals seeing moving people or equipment up ahead - install solid sides on chutes and races or install shields;

d) chains or other loose objects hanging in chutes or on fences - remove them;

e) uneven floors or a sudden drop in floor levels at the entrance to conveyor restrainers – avoid uneven floor surfaces or install a solid false floor under the restrainer to provide an illusion of a solid and continuous walking surface;

f) sounds of air hissing from pneumatic equipment - install silencers or use hydraulic equipment or vent high pressure to the external environment using flexible hosing;
Article 3.7.5.2.

Moving and handling animals

1. General considerations

Animals should be transported to slaughter in a way that minimises adverse animal health and welfare outcomes, and the transport should be conducted in accordance with the OIE guidelines for the transportation of animals (Chapter Appendices 3.7.2 and 3.7.3).

The following principles should apply to unloading animals, moving them into lairage pens, out of the lairage pens and up to the slaughter point:

a) The conditions of the animals should be assessed upon their arrival for any animal welfare and health problems.

b) Injured or sick animals, requiring immediate slaughter, should be killed humanely, preferably at the site where they are found in accordance with the OIE guidelines for the killing of animals for disease control purposes (Chapter Appendix 3.7.6).

c) Animals should not be forced to move at a speed greater than their normal walking pace, in order to minimise injury through falling or slipping. Performance standards should be established where numerical scoring of the prevalence of animals slipping or falling is used to evaluate whether animal moving practices and/or facilities should be improved. In properly designed and constructed facilities with competent accredited animal handlers or animal handlers, it should be possible to move 99% of animals without their falling.

d) Animals for slaughter should not be forced to walk over the top of other animals.

e) Animals should be handled in such a way as to avoid harm, distress or injury. Under no circumstances should accredited animal handlers or animal handlers resort to violent acts to move animals, such as crushing or breaking animals' tails of animals, grasping animals' eyes or pulling them by the ears. Accredited animal handlers and animal handlers should never apply an injurious object or irritant substance to animals and especially not to sensitive areas such as eyes, mouth, ears, anogenital region or belly. The throwing or dropping of animals, or their lifting or dragging by body parts such as their tail, head, horns, ears, limbs, wool, hair or feathers, should not be permitted. The manual lifting of small animals is permissible.

f) When using goads and other aids, the following principles should apply:

i) Animals that have little or no room to move should not be subjected to physical force or goads and other aids which compel movement. Electric goads and prods should only be used in extreme cases and not on a routine basis to move animals. The use and the power output should be restricted to that necessary to assist movement of an animal and only when an animal has a clear path ahead to move. Goads and other aids should not be used repeatedly if the animal fails to respond or move. In such cases it should be investigated whether some physical or other impediment is preventing the animal from moving.

ii) Such devices should be limited to battery-powered goads on the hindquarters of pigs and large ruminants, and never on sensitive areas such as the eyes.
mouth, ears, anogenital region or belly. Such instruments should not be used on horses, sheep and goats of any age, or on calves or piglets.

iii) Useful and permitted goads include panels, flags, plastic paddles, flappers (a length of cane with a short strap of leather or canvas attached), plastic bags and metallic rattles; they should be used in a manner sufficient to encourage and direct movement of the animals without causing undue stress.

iv) Painful procedures (including whipping, tail twisting, use of nose twitches, pressure on eyes, ears or external genitalia), or the use of unsuitable goads or other aids which cause pain and suffering (including large sticks, sticks with sharp ends, lengths of metal piping, fencing wire or heavy leather belts), should not be used to move animals.

iv) The use of goads which administer electric shocks should be discouraged, and restricted to that necessary to assist movement of the animal. Such use should be limited to battery-powered goads on the hindquarters of pigs and large ruminants, and never on sensitive areas such as the eyes, mouth, ears, anogenital region or belly. Such instruments should not be used on horses, sheep and goats of any age, or on calves or piglets.

v) Shouting or yelling at animals or making loud noises (e.g., through the cracking of whips) to encourage them to move should not occur, as such actions may make the animals agitated, leading to crowding or falling.

vi) The use of well trained dogs to help with the loading of some species may be acceptable.

vii) Manual lifting is permissible for young animals that may have difficulty negotiating ramps, but the lifting of animals by body parts such as their tail, head, horns, ears, limbs, wool or hair should not be permitted. The throwing or dropping of animals should not be permitted.

vi) Animals should be grasped or lifted in a manner which avoids pain or suffering and physical damage (e.g. bruising, fractures, dislocations). In the case of quadrupeds, manual lifting by a person should only be used in young animals or small species, and in a manner appropriate to the species; grasping or lifting such animals only by their wool, hair, feathers, feet, neck, ears, or tails, head, horns, limbs causing pain or suffering should not be permitted, except in an emergency where animal welfare or human safety may otherwise be compromised.

vii) Conscious animals should not be thrown, or dragged or dropped.

viii) Performance standards should be established in which numerical scoring is used to evaluate the use of such instruments, and to measure the percentage of animals moved with an electric instrument and the percentage of animals slipping or falling at a point in the slaughterhouse; the slaughterhouse should be investigated for faults in flooring, raceway design, lighting or handling, and these should be rectified to enable free movement of the animals without the need to use such instruments.

SRB

The previous section on goads has been harmonised between this Appendix and the Appendices on Sea and Land Transport. I ensured that the text is the same, except in a couple of instances where certain points did not apply for all sections. The suggestion is to deal with this section at the same time as the sections on goads in Land Transport and Slaughter.

e) The use of force on animals that have little or no room to move should not occur.
d) The use of instruments which administer electric shocks (e.g., goads and prods) and their power output should be restricted to that necessary to assist movement of an animal and only when an animal has a clear path ahead to move. If such use is necessary, it should be limited to the hindquarters of pigs and large ruminants, and never on sensitive areas such as the eyes, mouth, ears, anogenital region or belly. Such instruments should not be used on horses, sheep and goats of any age, or on calves or piglets, nor on animals that have little or no room to move.

e) Performance standards should be established in which numerical scoring is used to evaluate the use of such instruments, and to measure the percentage of animals moved with an electric instrument and the percentage of animals slipping or falling at a point in the slaughterhouse; the slaughterhouse should be investigated for faults in flooring, raceway design, lighting or handling, and these should be rectified to enable free movement of the animals without the need to use such instruments.

f) Aids for moving animals such as panels, flags, plastic paddles, flappers (a length of cane with a short strap of leather or canvas attached), plastic bags and metallic rattles should be used in a manner sufficient to encourage and direct movement of the animals.

g) Shouting or yelling at animals or making loud noises e.g. through the cracking of whips to encourage them to move should not occur as such actions may make the animals agitated, leading to crowding or falling.

h) Implements which cause pain and suffering such as large sticks, sticks with sharp ends, metal piping, fencing wire or heavy leather belts should not be used to move animals.

i) Animals should be grasped or lifted in a manner which avoids pain or suffering and physical damage (e.g., bruising, fractures, dislocations). In the case of quadrupeds, manual lifting by a person should only be used in young animals or small species, and in a manner appropriate to the species; grasping or lifting such animals only by their wool, hair, feet, neck, ears or tails causing pain or suffering should not be permitted, except in an emergency where animal welfare or human safety may otherwise be compromised.

j) Conscious animals should not be thrown or dragged.

k) Animals should not be forced to move at a speed greater than their normal walking pace, in order to minimise injury through falling or slipping. Performance standards should be established where numerical scoring of the prevalence of animals slipping or falling is used to evaluate whether animal moving practices and/or facilities should be improved. In properly designed and constructed facilities with competent accredited animal handlers or animal handlers, it should be possible to move 99% of animals without their falling.

l) Animals for slaughter should not be forced to walk over the top of other animals.

m) Animals should be handled in such a way as to avoid harm, distress or injury. Under no circumstances should accredited animal handlers or animal handlers resort to violent acts to move animals, such as crushing or breaking animals’ tails of animals, grasping animals’ eyes or pulling them by their the ears. Accredited animal handlers and animal handlers should never apply an injurious object or irritant substance to animals and especially not to sensitive areas such as eyes, mouth, ears, anogenital region or belly. The throwing or dropping of animals, or their lifting or dragging by body parts such as their tail, head, horns, ears, limbs, wool, hair or feathers, should not be permitted. The manual lifting of small animals is permissible.

2. Provisions relevant to animals delivered in containers

a) Containers in which animals are transported should be handled with care, and should not be thrown, dropped or knocked over. Where possible, they should be horizontal while being
loaded and unloaded mechanically, and stacked to ensure ventilation. In any case they should be moved and stored in an upright position as indicated by specific marks.

b) Animals delivered in containers with perforated or flexible bottoms should be unloaded with particular care in order to avoid injury. Where appropriate, animals should be unloaded from the containers individually.

c) Animals which have been transported in containers should be slaughtered as soon as possible; mammals and ratites which are not taken directly upon arrival to the place of slaughter should have drinking water available to them from appropriate facilities at all times. Delivery of poultry for slaughter should be scheduled such that they are not deprived of water at the premises for longer than 12 hours. Animals which have not been slaughtered within 12 hours of their arrival should be fed, and should subsequently be given moderate amounts of food at appropriate intervals.

3. **Provisions relevant to restraining and containing animals**

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<td>Restraining vs restraint? May want to use restraint for consistency throughout the document.</td>
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a) Provisions relevant to restraining animals for stunning or slaughter without stunning, to help maintain animal welfare, include:

i) provision of a non-slip floor;

ii) avoidance of excessive pressure applied by restraining equipment that causes struggling or vocalisation in animals;

iii) equipment engineered to reduce noise of air hissing and clanging metal;

iv) absence of sharp edges in restraining equipment that would harm animals;

v) avoidance of jerking or sudden movement of restraining device.

b) Methods of restraint causing avoidable suffering such as the following should not be used in conscious animals because they cause severe pain and stress, such as the following:

i) suspending or hoisting animals (other than poultry) by the feet or legs;

ii) indiscriminate and inappropriate use of stunning equipment;

iii) mechanical clamping of an animal’s legs or feet of the animals (other than shackles used in poultry and ostriches) as the sole method of restraint;

iv) breaking legs, cutting leg tendons or blinding animals in order to immobilise them;

v) severing the spinal cord, for example using a puntilla or dagger, to immobilise animals; using electric currents to immobilise animals, except for proper stunning.

Article 3.7.5.3.

**Lairage design and construction**

1. **General considerations**
The *lairage* should be designed and constructed to hold an appropriate number of animals in relation to the throughput rate of the *slaughterhouse* without compromising the welfare of the animals.

In order to permit operations to be conducted as smoothly and efficiently as possible without injury or undue stress to the animals, the *lairage* should be designed and constructed so as to allow the animals to move freely in the required direction, using their behavioural characteristics and without undue penetration of their flight zones.

### SRB

*Zone should not be italicised in this case since it refers to flight zone.*

The following guidelines may help to achieve this.

2. **Design of lairages**

   **SRB**

   Consider using lairage instead of plural lairages, for consistency. There are several instances in the text where lairages were used. Whatever the final decision, it should be the same throughout the text.

   a) The *lairage* should be designed to allow a one-way flow of animals from *unloading* to the point of *slaughter*, with a minimum number of abrupt corners to negotiate.

   b) In red meat *slaughterhouses*, pens, passageways and races should be arranged in such a way as to permit inspection of animals at any time, and to permit the removal of sick or injured animals when considered to be appropriate, for which separate appropriate accommodation should be provided.

   c) Each animal should have room to stand up and lie down and, when confined in a pen, to turn around, except where the animal is reasonably restrained for safety reasons (e.g., fractious bulls). The *lairage* should have sufficient accommodation for the number of animals intended to be held. Drinking water should always be available to the animals, and the method of delivery should be appropriate to the type of animal held. Troughs should be designed and installed in such a way as to minimise the risk of fouling by faeces, without introducing risk of bruising and injury in animals, and should not hinder the movement of animals.

   d) Holding pens should be designed to allow as many animals as possible to stand or lie down against a wall. Where feed troughs are provided, they should be sufficient in number and feeding space to allow adequate access of all animals to feed. The feed trough should not hinder the movement of animals.

   e) Where tethers, ties or individual stalls are used, these should be designed so as not to cause injury or distress to the animals and should also allow the animals to stand, lie down and access any food or water that may need to be provided.

   f) Passageways and races should be either straight or consistently curved, as appropriate to the animal species. Passageways and races should have solid sides, but when there is a double race, the shared partition should allow adjacent animals to see each other. For pigs and sheep, passageways should be wide enough to enable two or more animals to walk side by side for as long as possible. At the point where passageways are reduced in width, this should be done by a means which prevents excessive bunching of the animals.

   g) **Accredited animal handlers and animal handlers** should be positioned alongside races and passageways on the inside radius of any curve, to take advantage of the natural tendency of animals to circle an intruder. Where one-way gates are used, they should be of a design which
avoids bruising. Races should be horizontal but where there is a slope, they should be constructed to allow the free movement of animals without injury.

h) There should be a waiting pen, with a level floor and solid sides, between the holding pens and the race leading to the point of stunning or slaughter, to ensure a steady supply of animals for stunning or slaughter and to avoid having accredited animal handlers or animal handlers trying to rush animals from the holding pens. The waiting pen should preferably be circular, but in any case, so designed that animals cannot be trapped or trampled.

i) Ramps or lifts should be used for loading and unloading of animals where there is a difference in height or a gap between the floor of the vehicle and the unloading area. Unloading ramps should be designed and constructed so as to permit animals to be unloaded from vehicles on the level or at the minimum gradient achievable. Lateral side protection should be available to prevent animals escaping or falling. They should be well drained, with secure footholds and adjustable to facilitate easy movement of animals without causing distress or injury.

3. Construction of lairages

   a) Lairages should be constructed and maintained so as to provide protection from unfavourable climatic conditions, using strong and resistant materials such as concrete and metal which has been treated to prevent corrosion. Surfaces should be easy to clean. There should be no sharp edges or protuberances which may injure the animals.

   b) Floors should be well drained and not slippery; they should not cause injury to the animals’ feet. Where necessary, floors should be insulated or provided with appropriate bedding. Drainage grids should be placed at the sides of pens and passageways and not where animals would have to cross them. Discontinuities or changes in floor patterns or texture which could cause baulking in the movement of animals should be avoided.

   c) Lairages should be provided with adequate lighting, but care should be taken to avoid harsh lights and shadows, which frighten the animals or affect their movement. The fact that animals will move more readily from a darker area into a well-lit area might be exploited by providing for lighting that can be regulated accordingly.

   d) Lairages should be adequately ventilated to ensure that waste gases (e.g., ammonia) do not build up and that draughts at animal height are minimised. Ventilation should be able to cope with the range of expected climatic conditions and the number of animals the lairage will be expected to hold.

   e) Care should be taken to protect the animals from excessively or potentially disturbing noises, for example by avoiding the use of noisy hydraulic or pneumatic equipment, and muffling noisy metal equipment by the use of suitable padding, or by minimising the transmission of such noise to the areas where animals are held and slaughtered.

   f) Where animals are kept in outdoor lairages without natural shelter or shade, they should be protected from the effects of adverse weather conditions.

Article 3.7.5.4.

Care of animals in lairages

Animals in lairages should be cared for in accordance with the following guidelines:

1. As far as possible, established groups of animals should be kept together. Each animal should have enough space to stand up, lie down and turn around. Animals hostile to each other should be separated.
2. Where tethers, ties or individual stalls are used, they should allow animals to stand up and lie down without causing injury or distress.

3. Where bedding is provided, it should be maintained in a condition that minimises risks to the health and safety of the animals, and sufficient bedding should be used so that animals do not become soiled with manure.

4. Animals should be kept securely in the lairage, and care should be taken to prevent them from escaping and from predators.

5. Suitable drinking water should be available to the animals on their arrival and at all times to animals in lairage unless they are to be slaughtered without delay.

6. If animals are not to be slaughtered as soon as possible, suitable feed should be available to the animals on arrival and at intervals appropriate to the species. Unweaned animals should be slaughtered as soon as possible.

7. In order to prevent heat stress, animals subjected to high temperatures, particularly pigs and poultry, should be cooled by the use of water sprays, fans or other suitable means. However, the potential for water sprays to reduce the ability of animals to thermoregulate (especially poultry) should be considered in any decision to use water sprays. The risk of animals being exposed to very cold temperatures or sudden extreme temperature changes should also be considered.

8. The lairage area should be well lit in order to enable the animals to see clearly without being dazzled. During the night, the lights should be dimmed. Lighting should also be adequate to permit inspection of all animals. Subdued lighting, and for example, blue light may be useful in poultry lairages in helping to calm birds.

9. The condition and state of health of the animals in a lairage should be inspected at least every morning and evening by a veterinarian or, under the latter’s responsibility, by another competent person, such as an accredited animal handler or an animal handler. Animals which are sick, weak, injured or showing visible signs of distress should be separated, and veterinary advice should be sought immediately regarding treatment or euthanasia and treated or humanely killed immediately.

SRB

The additional text clarifies the responsibilities and options for personnel.

10. Lactating dairy animals should be slaughtered as soon as possible. Dairy animals with obvious udder distension should be milked to minimise udder discomfort.

11. Animals which have given birth during the journey or in the lairage should be slaughtered as soon as possible or provided with conditions which are appropriate for suckling, for their welfare and the welfare of the newborn. Under normal circumstances, animals which are expected to give birth during a journey should not be transported.

SRB

Considering the text is dealing with animals (plural) then it should be “their” and not “its”.

12. Animals with horns, antlers or tusks capable of injuring other animals, if aggressive, should be penned separately.

Recommendations for specific species are described in detail in Articles 3.7.5.5. to 3.7.5.8.
Management of foetuses during slaughter of pregnant animals

The welfare of foetuses during slaughter of pregnant animals needs to be safeguarded.

Under normal circumstances, pregnant animals which would be in the final 10% of their gestation period at the planned time of unloading at the slaughterhouse should neither be transported nor slaughtered. When such an event occurs, an accredited animal handler or an animal handler should ensure that females are handled separately and the specific procedures described below are applied. In all cases, the welfare of foetuses and dams during slaughter should be safeguarded.

1. Foetuses should not be removed from the uterus sooner than five minutes after the maternal neck or chest cut, to ensure absence of consciousness. A foetal heartbeat will usually still be present and foetal movements may occur at this stage, but these are only a cause for concern if the exposed foetus successfully breathes air.

2. If a live mature foetus is removed from the uterus, it should be prevented from inflating its lungs and breathing air (e.g., by clamping the trachea).

3. When uterine, placental or foetal tissues, including foetal blood, are not to be collected as part of the post-slaughter processing of pregnant animals, all foetuses should be left inside the unopened uterus until they are dead. When uterine, placental or foetal tissues are to be collected, where practical, foetuses should not be removed from the uterus until at least 15-20 minutes after the maternal neck or chest cut.

4. If there is any doubt about consciousness, the foetus should be killed with a captive bolt of appropriate size or a blow to the head with a suitable blunt instrument.

The above guidelines do not refer to foetal rescue. Foetal rescue, the practice of attempting to revive foetuses found alive at evisceration of the dam, should not be attempted during normal commercial slaughter as it may lead to serious welfare complications in the newborn animal. These include impaired brain function resulting from oxygen shortage before rescue is completed, compromised breathing and body heat production because of foetal immaturity, and an increased incidence of infections due to a lack of colostrum.

SRB

Just for clarification … so the foetuses are left to die on their own following maternal death?
### Article 3.7.5.6.
Summary of acceptable handling and restraining methods and the associated animal welfare issues

<table>
<thead>
<tr>
<th>Presentation of animals</th>
<th>Specific procedure</th>
<th>Specific purpose</th>
<th>AW concerns/implications</th>
<th>Key AW requirements</th>
<th>Applicable species</th>
</tr>
</thead>
<tbody>
<tr>
<td>No restraint</td>
<td>Animals are grouped</td>
<td>Group container</td>
<td>Gas stunning</td>
<td>Specific procedure is suitable only for gas stunning</td>
<td>Competent accredited animal handlers in lairage, facilities; stocking density</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Operator competence</td>
<td>Deer</td>
</tr>
<tr>
<td></td>
<td>In the field</td>
<td>Free bullet</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Group stunning pen</td>
<td>Head-only electrical</td>
<td>Uncontrolled movement of animals impedes use of hand operated electrical and mechanical stunning methods</td>
<td>Competent accredited animal handlers in lairage and at stunning point</td>
<td>Pigs, sheep, goats, calves</td>
</tr>
<tr>
<td></td>
<td>Individual animal confinement</td>
<td>Stunning pen/box</td>
<td>Electrical and mechanical stunning methods</td>
<td>Loading of animal; accuracy of stunning method, slippery floor and animal falling down</td>
<td>Competent accredited animal handlers</td>
</tr>
<tr>
<td>Restraining methods</td>
<td>Head restraint, upright</td>
<td>Halter/ head collar/bridle</td>
<td>Captive bolt Free bullet</td>
<td>Suitable for halter-trained animals; stress in untrained animals</td>
<td>Competent accredited animal handlers</td>
</tr>
<tr>
<td></td>
<td>Head restraint, upright</td>
<td>Neck yoke</td>
<td>Captive bolt Electrical-head-only Free bullet Slaughter without stunning</td>
<td>Stress of loading and neck capture; stress of prolonged restraint, horn configuration; unsuitable for fast line speeds, animals struggling and falling due to slippery floor, excessive pressure</td>
<td>Equipment; competent accredited animal handlers, prompt stunning or slaughter</td>
</tr>
<tr>
<td>Leg restraint</td>
<td>Single leg tied in flexion (animal standing on 3 legs)</td>
<td>Captive bolt Free bullet</td>
<td>Ineffective control of animal movement, misdirected shots</td>
<td>Competent accredited animal handlers</td>
<td>Breeding pigs (boars and sows)</td>
</tr>
</tbody>
</table>
Summary of acceptable handling and restraining methods and the associated animal welfare issues (contd)

<table>
<thead>
<tr>
<th>Presentaion of animals</th>
<th>Specific procedure</th>
<th>Specific purpose</th>
<th>AW concerns/implications</th>
<th>Key AW requirements</th>
<th>Applicable species</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restraining methods</td>
<td>Upright restraint</td>
<td>Beak holding</td>
<td>Captive bolt</td>
<td>Stress of capture</td>
<td>Sufficient Competent Accredited animal handlers</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Electrical-head-only</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Head restraint in electrical stunning box</td>
<td>Electrical-head-only</td>
<td>Stress of capture and positioning</td>
<td>Competent Accredited animal handlers</td>
</tr>
<tr>
<td>Holding body upright- manual restraint</td>
<td>Manual restraint</td>
<td>Captive bolt Electrical-head-only</td>
<td>Stress of capture and restraint; accuracy of stunning/slaughter</td>
<td>Competent Accredited animal handlers</td>
<td>Sheep, goats, calves, ratites, small camelids, poultry</td>
</tr>
<tr>
<td>Holding body upright- mechanical restraint</td>
<td>Mechanical clamp / crush / squeeze / V-restrainer (static)</td>
<td>Captive bolt Electrical methods</td>
<td>Loading of animal and overriding; excessive pressure</td>
<td>Proper design and operation of equipment</td>
<td>Cattle, buffalo, sheep, goats, deer, pigs, ostriches</td>
</tr>
<tr>
<td>Lateral restraint – manual or mechanical</td>
<td>Restrainer/cradle/crush</td>
<td>Slaughter without stunning</td>
<td>Stress of restraint</td>
<td>Competent Accredited animal handlers</td>
<td>Sheep, goats, calves, camelids, cattle</td>
</tr>
<tr>
<td>Upright restraint mechanical (static)</td>
<td>Mechanical straddle</td>
<td>Slaughter without stunning Electrical methods Captive bolt</td>
<td>Loading of animal and overriding</td>
<td>Competent Accredited animal handlers</td>
<td>Cattle, sheep, goats, pigs</td>
</tr>
<tr>
<td>Upright restraint – manual or mechanical</td>
<td>Wing shackling</td>
<td>Electrical</td>
<td>Excessive tension applied prior to stunning</td>
<td>Competent Accredited animal handlers</td>
<td>Ostriches</td>
</tr>
</tbody>
</table>
### Summary of acceptable handling and restraining methods and the associated animal welfare issues (contd)

<table>
<thead>
<tr>
<th>Restraining and/or conveying methods</th>
<th>Presentation of animals</th>
<th>Specific procedure</th>
<th>Specific purpose</th>
<th>AW concerns/implications</th>
<th>Key AW requirements</th>
<th>Applicable species</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mechanical - upright</td>
<td>V-restrainer</td>
<td>Electrical methods Captive bolt Slaughter without stunning</td>
<td>Loading of animal and overriding; excessive pressure, size mismatch between restrainer and animal</td>
<td>Proper design and operation of equipment</td>
<td>Cattle, calves, sheep, goats, pigs</td>
<td></td>
</tr>
<tr>
<td>Mechanical - upright</td>
<td>Mechanical straddle – band restrainer (moving)</td>
<td>Electrical methods Captive bolt Slaughter without stunning</td>
<td>Loading of animal and overriding, size mismatch between restrainer and animal</td>
<td>Competent Accredited animal handlers, proper design and layout of restraint</td>
<td>Cattle, calves, sheep, goats, pigs</td>
<td></td>
</tr>
<tr>
<td>Mechanical - upright</td>
<td>Flat bed/deck Tipped out of containers on to conveyors</td>
<td>Presentation of birds for shackling prior to electrical stunning Gas stunning</td>
<td>Stress and injury due to tipping in dump-module systems height of tipping conscious poultry broken bones and dislocations</td>
<td>Proper design and operation of equipment</td>
<td>Poultry</td>
<td></td>
</tr>
<tr>
<td>Suspension and/or inversion</td>
<td>Poultry shackle</td>
<td>Electrical stunning Slaughter without stunning</td>
<td>Inversion stress; pain from compression on leg bones</td>
<td>Competent Accredited animal handlers, proper design and operation of equipment</td>
<td>Poultry</td>
<td></td>
</tr>
<tr>
<td>Suspension and/or inversion</td>
<td>Cone</td>
<td>Electrical – head-only Captive bolt Slaughter without stunning</td>
<td>Inversion stress</td>
<td>Competent Accredited animal handlers, proper design and operation of equipment</td>
<td>Poultry</td>
<td></td>
</tr>
<tr>
<td>Upright restraint</td>
<td>Mechanical leg clamping</td>
<td>Electrical – head-only</td>
<td>Stress of resisting restraint in ostriches</td>
<td>Competent Accredited animal handlers, proper equipment design and operation</td>
<td>Ostriches</td>
<td></td>
</tr>
</tbody>
</table>
### Summary of acceptable handling and restraining methods and the associated animal welfare issues (contd)

<table>
<thead>
<tr>
<th>Presentation of animals</th>
<th>Specific procedure</th>
<th>Specific purpose</th>
<th>AW concerns/implications</th>
<th>Key AW requirements</th>
<th>Applicable species</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restraining by inversion</td>
<td>Rotating box</td>
<td>Fixed side(s) (e.g. Weinberg pen)</td>
<td>Slaughter without stunning</td>
<td>Inversion stress; stress of resisting restraint, prolonged restraint, inhalation of blood and ingesta. Keep restraint as brief as possible</td>
<td>Proper design and operation of equipment</td>
</tr>
<tr>
<td></td>
<td>Compressible side(s)</td>
<td>Slaughter without stunning</td>
<td>Inversion stress, stress of resisting restraint, prolonged restraint Preferable to rotating box with fixed sides Keep restraint as brief as possible</td>
<td></td>
<td>Cattle</td>
</tr>
<tr>
<td>Body restraint</td>
<td>Casting/hobbling</td>
<td>Manual</td>
<td>Mechanical stunning methods Slaughter without stunning</td>
<td>Stress of resisting restraint; animal temperament; bruising Keep restraint as short as possible</td>
<td>Competent Accredited animal handlers</td>
</tr>
<tr>
<td>Leg restraints</td>
<td>Rope casting</td>
<td>Mechanical stunning methods Slaughter without stunning</td>
<td>Stress of resisting restraint; prolonged restraint, animal temperament; bruising Keep restraint as short as possible</td>
<td>Competent Accredited animal handlers</td>
<td>Cattle, camelids</td>
</tr>
<tr>
<td></td>
<td>Tying of 3 or 4 legs</td>
<td>Mechanical stunning methods Slaughter without stunning</td>
<td>Stress of resisting restraint; prolonged restraint, animal temperament; bruising Keep restraint as short as possible</td>
<td>Competent Accredited animal handlers</td>
<td>Sheep, goats, small camelids, pigs</td>
</tr>
</tbody>
</table>
**Stunning methods**

1. **General considerations**

   The competence of the operators, and the appropriateness, and effectiveness of the method used for stunning and the maintenance of the equipment are the responsibility of the management of the slaughterhouse, and should be checked regularly by a Competent Authority.

   Persons carrying out stunning should be properly trained and competent, and should ensure that:

   a) the animal is adequately restrained;

   b) animals in restraint are stunned as soon as possible;

   c) the equipment used for stunning is maintained and operated properly in accordance with the manufacturer's recommendations, in particular with regard to the species and size of the animal;

   d) the instrument is applied correctly;

   e) stunned animals are bled out (slaughtered) as soon as possible;

   f) animals should not be stunned when slaughter is likely to be delayed; and

   g) backup stunning devices are available for immediate use if the primary method of stunning fails.

   In addition, such persons should be able to recognise when an animal is not correctly stunned and should take appropriate action.

2. **Mechanical stunning**

   A mechanical device should be applied usually to the front of the head and perpendicular to the bone surface. The following diagrams illustrate the proper application of the device for certain species.

   **Cattle**

   The optimum position for cattle is at the intersection of two imaginary lines drawn from the rear of the eyes to the opposite horn buds.

   **Pigs**
The optimum position for pigs is on the midline just above eye level, with the shot directed down the line of the spinal cord.

Sheep

![Sheep diagram]

The optimum position for hornless sheep and goats is on the midline.

Goats

![Goats diagram]

The optimum position for heavily horned sheep and horned goats is behind the poll, aiming towards the angle of the jaw.

Horses
The optimum position for horses is at right angles to the frontal surface, well above the point where imaginary lines from eyes to ears cross.

Signs of correct stunning using a mechanical instrument are as follows:

a) the animal collapses immediately and does not attempt to stand up;

b) the body and muscles of the animal become tonic (rigid) immediately after the shot;

c) normal rhythmic breathing stops; and

d) the eyelid is open with the eyeball facing straight ahead and is not rotated.

3. Electrical stunning

a) General considerations

An electrical device should be applied to the animal in accordance with the following guidelines.

Electrodes should be designed, constructed, maintained and cleaned regularly to ensure that the flow of current is optimal and in accordance with manufacturing specifications. They should be placed so that they span the brain. The application of electrical currents which bypass the brain is unacceptable unless the animal has been stunned. The use of a single current leg-to-leg is unacceptable as a stunning method.

If, in addition, it is intended to cause cardiac arrest, the electrodes should either span the brain and immediately thereafter the heart, on the condition that it has been ascertained that the animal is adequately stunned, or span brain and heart simultaneously.

Electrical stunning equipment should not be applied on animals as a means of guidance, movement, restraint or immobilisation, and shall not deliver any shock to the animal before the actual stunning or killing.

Electrical stunning apparatus should be tested prior to application on animals using appropriate resistors or dummy loads to ensure the power output is adequate to stun animals.

The apparatus should incorporate a device which monitors and displays stunning current delivered to the animals.

Appropriate measures, such as removing excess wool or wetting the skin only at the point of contact, can be taken to minimise impedance of the skin and facilitate effective stunning.
The stunning apparatus required for electrical stunning should be provided with adequate power to achieve continuously the minimum current level recommended for stunning as indicated in the table below:

<table>
<thead>
<tr>
<th>Species</th>
<th>Minimum current levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cattle</td>
<td>1.5 amps</td>
</tr>
<tr>
<td>Calves</td>
<td>1.0 amps</td>
</tr>
<tr>
<td>Pigs</td>
<td>1.25 amps</td>
</tr>
<tr>
<td>Sheep and goats</td>
<td>1.0 amps</td>
</tr>
<tr>
<td>Lambs</td>
<td>0.7 amps</td>
</tr>
<tr>
<td>Ostriches</td>
<td>0.4 amps</td>
</tr>
</tbody>
</table>

In all cases, the correct current level shall be attained within one second of the initiation of stun and maintained at least for between one and three seconds and in accordance with the manufacturer's instructions.

b) Electrical stunning of birds using a waterbath

In the case of birds suspended on a moving line, measures should be taken to ensure that the birds are not wing flapping at the entrance of the stunner. The birds should be secure in their shackle, but there should not be undue pressure on their shanks.

Waterbaths for poultry should be adequate in size and depth for the type of bird being slaughtered, and their height should be adjustable to allow for the head of each bird to be immersed. The electrode immersed in the bath should extend the full length of the waterbath. Birds should be immersed in the bath up to the base of their wings.

The waterbath should be designed and maintained in such a way that when the shackles pass over the water, they are in continuous contact with the earthed rubbing bar.

The control box for the waterbath stunner should incorporate an ammeter which displays the total current flowing through the birds.

The shackle-to-leg contact should be wetted preferably before the birds are inserted in the shackles. In order to improve electrical conductivity of the water it is recommended that salt be added in the waterbath as necessary. Additional salt should be added regularly as a solution to maintain suitable constant concentrations in the waterbath.

Using waterbaths, birds are stunned in groups and different birds will have different impedances. The voltage should be adjusted so that the total current is the required current per bird as shown in the table hereafter, multiplied by the number of birds in the waterbath at the same time. The following values have been found to be satisfactory when employing a 50 Hertz sinusoidal alternating current.

<table>
<thead>
<tr>
<th>Species</th>
<th>Current (milliamperes per bird)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broilers</td>
<td>120</td>
</tr>
<tr>
<td>Layers (spent hens)</td>
<td>120</td>
</tr>
<tr>
<td>Turkeys</td>
<td>150</td>
</tr>
<tr>
<td>Ducks and Geese</td>
<td>130</td>
</tr>
</tbody>
</table>

While a lower current may also be satisfactory, the current shall in any case be such as to ensure that unconsciousness occurs immediately and lasts until the bird has been killed by cardiac arrest or by bleeding. When higher electrical frequencies are used, higher currents may be required.
Every effort shall be made to ensure that no conscious or live birds enter the scalding tank.

In the case of automatic systems, until fail-safe systems of stunning and bleeding have been introduced, a manual back-up system should be in place to ensure that any birds which have missed the waterbath stunner and/or the automatic neck-cutter are immediately stunned and/or killed immediately, and they are dead before entering scald tank.

To lessen the number of unstunned birds that have not been effectively stunned from reaching neck cutters, steps should be taken to ensure that small birds do not go on the line amongst bigger birds and that these small birds are stunned separately.

SRB

“Unstunned” does not exist in the dictionary, consider revising to avoid using this word.

4. Gas stunning (under study)

a) Stunning of pigs by exposure to carbon dioxide (CO₂)

The concentration of CO₂ for stunning should be preferably 90% by volume but in any case no less than 80% by volume. After entering the stunning chamber, the animals should be conveyed to the point of maximum concentration of the gas as rapidly as possible and be kept until they are dead or brought into a state of insensibility which lasts until death occur due to bleeding. Ideally, pigs should be exposed to this concentration of CO₂ for 3 minutes. Sticking should occur as soon as possible after exit from the gas chamber.

In any case, the concentration of the gas should be such that it minimises as far as possible all stress of the animal prior to loss of consciousness.

The chamber in which animals are exposed to CO₂ and the equipment used for conveying them through it shall be designed, constructed and maintained in such a way as to avoid injury or unnecessary stress to the animals. The animal density within the chamber should be such to avoid stacking animals on top of each others.

The conveyor and the chamber shall be adequately lit to allow the animals to see their surroundings and, if possible, each other.

It should be possible to inspect the CO₂ chamber whilst it is in use, and to have access to the animals in emergency cases.

The chamber shall be equipped to continuously measure and display register at the point of stunning the CO₂ concentration and the time of exposure, and to give a clearly visible and audible warning if the concentration of CO₂ falls below the required level.

b) Inert gas mixtures for stunning pigs

Inhalation of high concentrations of carbon dioxide is aversive and can be distressing to animals. Therefore, the use of non-aversive gas mixtures is being developed.

Such gas mixtures include:

i) a maximum of 2% by volume of oxygen in argon, nitrogen or other inert gases, or

ii) a maximum of 30% by volume of carbon dioxide and a maximum of 2% by volume of oxygen in mixtures with carbon dioxide and argon, nitrogen or other inert gases.
Exposure time to the gas mixtures should be sufficient to ensure that no pigs regain consciousness before death supervenes through bleeding or cardiac arrest is induced.

c) Gas stunning of poultry

The main objective of gas stunning is to avoid the pain and suffering associated with shackling conscious poultry under water bath stunning and killing systems. Therefore, gas stunning should be limited to birds contained in crates or on conveyors only. The gas mixture should be non-aversive to poultry.

Gas stunning of poultry in their transport containers will eliminate the need for live bird handling at the processing plant and all the problems associated with the electrical stunning. Gas stunning of poultry on a conveyor eliminates the problems associated with the electrical water bath stunning.

Live poultry should be conveyed into the gas mixtures either in transport crates or on conveyor belts.

i) Gas mixtures used for stunning poultry include:

- a minimum of 2 minutes exposure to 40% carbon dioxide, 30% oxygen and 30% nitrogen, followed by a minimum of one minute exposure to 80% carbon dioxide in air; or

- a minimum of 2 minutes exposure to any mixture of argon, nitrogen or other inert gases with atmospheric air and carbon dioxide, provided that the carbon dioxide concentration does not exceed 30% by volume and the residual oxygen concentration does not exceed 2% by volume; or

- a minimum of 2 minutes exposure to argon, nitrogen, other inert gases or any mixture of these gases in atmospheric air with a maximum of 2% residual oxygen by volume; or

- a minimum of 2 minutes exposure to a minimum of 55% carbon dioxide in air.

ii) Requirements for effective use are as follows:

- Compressed gases should be vaporised prior to administration into the chamber and should be at room temperature to prevent any thermal shock. Under no circumstances, should solid gases with freezing temperatures enter the chamber.

- Gas mixtures should be humidified.

- Appropriate gas concentrations should be monitored and displayed continuously at the level of the birds inside the chamber.

Under no circumstances, should birds exposed to gas mixtures be allowed to regain consciousness. If necessary, the exposure time should be extended.

5. Bleeding

From the point of view of animal welfare, animals which are stunned with a reversible method should be bled without delay and in any case within the following time limits:

<table>
<thead>
<tr>
<th>Stunning method</th>
<th>Maximum delay for bleeding to be started</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrical methods and non penetrating captive bolt</td>
<td>20 seconds</td>
</tr>
</tbody>
</table>
All animals should be bled out by incising both carotid arteries, or the vessels from which they arise (e.g., chest stick). However, when the stunning method used causes cardiac arrest, the incision of all of these vessels is not necessary from the point of view of animal welfare.

It should be possible for staff to observe, inspect and access the animals throughout the bleeding period. Any animal showing signs of recovering consciousness should be re-stunned.

---

**SRB**

Restunned is not in dictionary. Re-stunned may be more correct.

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After incision of the blood vessels, no scalding carcass treatment or dressing procedures should be performed on the animals for at least 30 seconds, or in any case until all brain-stem reflexes have ceased.
### Article 3.7.5.8.

**Summary of acceptable stunning methods and the associated animal welfare issues**

<table>
<thead>
<tr>
<th>Method</th>
<th>Specific method</th>
<th>AW concerns/implications</th>
<th>Key AW requirements applicable</th>
<th>Species</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mechanical</td>
<td>Free bullet</td>
<td>Inaccurate targeting and inappropriate ballistics</td>
<td>Operator competence, achieving outright kill with first shot</td>
<td>Cattle, calves, buffalo, deer, horses, pigs (boars and sows)</td>
<td>Personnel safety</td>
</tr>
<tr>
<td></td>
<td>Captive bolt - penetrating</td>
<td>Inaccurate targeting, velocity and diameter of bolt</td>
<td>Competent operation and maintenance of equipment; restraint; accuracy</td>
<td>Cattle, calves, buffalo, sheep, goats, deer, horses, pigs, camelids, ratites</td>
<td>(Unsuitable for specimen collection from TSE suspects). A back-up gun should be available in the event of an ineffective shot</td>
</tr>
<tr>
<td></td>
<td>Captive bolt - non-penetrating</td>
<td>Inaccurate targeting, velocity of bolt, potentially higher failure rate than penetrating captive bolt</td>
<td>Competent operation and maintenance of equipment; restraint; accuracy</td>
<td>Cattle, calves, sheep, goats, deer, pigs, camelids, ratites</td>
<td>Presently available devices are not recommended for young bulls and animals with thick skull</td>
</tr>
<tr>
<td></td>
<td>Manual percussive blow</td>
<td>Inaccurate targeting; insufficient power; size of instrument</td>
<td>Competent Accredited animal handler, restraint; accuracy. Not recommended for general use</td>
<td>Young and small mammals, ostriches and poultry</td>
<td>Mechanical devices potentially more reliable. Where manual percussive blow is used, unconsciousness should be achieved with single sharp blow delivered to central skull bones</td>
</tr>
<tr>
<td>Electrical</td>
<td>Split application: 1. across head then head to chest; 2. across head then across chest</td>
<td>Accidental pre-stun electric shocks; electrode positioning; application of a current to the body while animal conscious; inadequate current and voltage</td>
<td>Competent operation and maintenance of equipment; restraint; accuracy</td>
<td>Cattle, calves, sheep, goats and pigs, ratites and poultry</td>
<td>Systems involving repeated application of head-only or head-to-leg with short current durations (&lt;1 second) in the first application should not be used.</td>
</tr>
</tbody>
</table>
## Summary of acceptable stunning methods and the associated animal welfare issues

<table>
<thead>
<tr>
<th>Method</th>
<th>Specific method</th>
<th>AW concerns/implications</th>
<th>Key AW requirements applicable</th>
<th>Species</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrical</td>
<td>Single application: 1. head only; 2. head to body; 3. head to leg</td>
<td>Accidental pre-stun electric shocks; inadequate current and voltage; wrong electrode positioning; recovery of consciousness</td>
<td>Competent operation and maintenance of equipment; restraint; accuracy</td>
<td>Cattle, calves, sheep, goats, pigs, ratites, poultry</td>
<td></td>
</tr>
<tr>
<td>Waterbath</td>
<td></td>
<td>Restraint, accidental pre-stun electric shocks; inadequate current and voltage; recovery of consciousness</td>
<td>Competent operation and maintenance of equipment</td>
<td>Poultry only</td>
<td></td>
</tr>
<tr>
<td>Gaseous</td>
<td>CO₂ air/O₂ mixture; CO₂ inert gas mixture</td>
<td>Aversiveness of high CO₂ concentrations, respiratory distress; inadequate exposure</td>
<td>Concentration; duration of exposure; design, maintenance and operation of equipment; stocking density management</td>
<td>Pigs, poultry</td>
<td></td>
</tr>
<tr>
<td>Inert gases</td>
<td></td>
<td>Recovery of consciousness</td>
<td>Concentration; duration of exposure; design, maintenance and operation of equipment; stocking density management</td>
<td>Pigs, poultry</td>
<td></td>
</tr>
</tbody>
</table>
### Summary of acceptable slaughter methods and the associated animal welfare issues

<table>
<thead>
<tr>
<th>Slaughter methods</th>
<th>Specific method</th>
<th>AW concerns / implications</th>
<th>Key requirements</th>
<th>Species</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bleeding out by severance of blood vessels in the neck without stunning</td>
<td>Full frontal cutting across the throat</td>
<td>Failure to cut both common carotid arteries; occlusion of cut arteries.</td>
<td>A very sharp blade or knife, of sufficient length so that the point of the knife remains outside the incision during the cut; the point of the knife should not be used to make the incision. An incision which does not close over the knife during the throat cut.</td>
<td>Cattle, buffalo, horses, camelids, sheep, goats, poultry, ratites</td>
<td></td>
</tr>
<tr>
<td>Bleeding with prior stunning</td>
<td>Full frontal cutting across the throat</td>
<td>Failure to cut both common carotid arteries; pain during and after the cut.</td>
<td>A very sharp blade or knife, of sufficient length so that the point of the knife remains outside the incision during the cut; the point of the knife should not be used to make the incision. An incision which does not close over the knife during the throat cut.</td>
<td>Cattle, buffalo, horses, camelids, sheep, goats, poultry, ratites</td>
<td></td>
</tr>
<tr>
<td>Neck stab followed by forward cut</td>
<td>Neck stab followed by forward cut</td>
<td>Ineffective stunning; failure to cut both common carotid arteries; impaired blood flow; delay in cutting after reversible stunning</td>
<td>Prompt and accurate cutting</td>
<td>Camelids, sheep, goats, poultry, ratites</td>
<td></td>
</tr>
<tr>
<td>Neck stab alone</td>
<td>Neck stab alone</td>
<td>Ineffective stunning; failure to cut both common carotid arteries; impaired blood flow; delay in cutting after reversible stunning</td>
<td>Prompt and accurate cutting</td>
<td>Camelids, sheep, goats, poultry, ratites</td>
<td></td>
</tr>
</tbody>
</table>

**Summary of acceptable slaughter methods and the associated animal welfare issues (contd)**

<table>
<thead>
<tr>
<th>Slaughter methods</th>
<th>Specific method</th>
<th>AW concerns / implications</th>
<th>Key requirements</th>
<th>Species</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bleeding with prior stunning (contd)</td>
<td>Chest stick into major arteries or hollow-tube knife into</td>
<td>Ineffective stunning; inadequate size of stick wound inadequate length</td>
<td>Prompt and accurate sticking</td>
<td>Cattle, sheep, goats, pigs</td>
<td></td>
</tr>
<tr>
<td>Method</td>
<td>Cause</td>
<td>Effect</td>
<td>Application</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------------------------------------</td>
<td>---------------------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
<td>-------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>heart</td>
<td>of sticking knife; delay in sticking after reversible stunning</td>
<td>Prompt and accurate cutting of vessels</td>
<td>Cattle</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neck skin cut followed by severance of vessels in the neck</td>
<td>Ineffective stunning; inadequate size of stick wound; inadequate length of sticking knife; delay in sticking after reversible stunning</td>
<td>Design, maintenance and operation of equipment; accuracy of cut; manual back-up</td>
<td>Poultry only</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bleeding with prior stunning</td>
<td>Automated mechanical cutting Ineffective stunning; failure to cut and misplaced cuts. Recovery of consciousness following reversible stunning systems</td>
<td>Prior non-reversible stunning</td>
<td>Poultry only</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manual neck cut on one side</td>
<td>Ineffective stunning; recovery of consciousness following reversible stunning systems</td>
<td>Prior non-reversible stunning</td>
<td>Poultry only</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral cut</td>
<td>Ineffective stunning; recovery of consciousness following reversible stunning systems</td>
<td>Prior non-reversible stunning</td>
<td>Poultry only</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

N.B. slow induction of unconsciousness under slaughter without stunning

N.B. slow induction of unconsciousness in non-stun systems
<table>
<thead>
<tr>
<th>Slaughter methods</th>
<th>Specific method</th>
<th>AW concerns / implications</th>
<th>Key requirements</th>
<th>Species</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other methods without stunning</td>
<td>Decapitation with a sharp knife</td>
<td>Pain due to loss of consciousness not being immediate</td>
<td></td>
<td>Sheep, goats, poultry</td>
<td>This method is only applicable to Jhatka slaughter</td>
</tr>
<tr>
<td></td>
<td>Manual neck dislocation and decapitation</td>
<td>Pain due to loss of consciousness not being immediate; difficult to achieve in large birds</td>
<td>Neck dislocation should be performed in one stretch to sever the spinal cord</td>
<td>Poultry only</td>
<td>Slaughter by neck dislocation should be performed in one stretch to sever the spinal cord</td>
</tr>
<tr>
<td>Cardiac arrest in a waterbath electric stunner</td>
<td>Bleeding by evisceration</td>
<td>Induction of cardiac arrest</td>
<td></td>
<td>Quail</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bleeding by neck cutting</td>
<td></td>
<td></td>
<td>Poultry</td>
<td></td>
</tr>
</tbody>
</table>

Article 3.7.5.10.

Methods, procedures or practices unacceptable on animal welfare grounds

1. The restraining methods which work through immobilisation by injury such as breaking legs, and leg tendon cutting, and severing the spinal cord (e.g., using a puntilla or dagger) cause severe pain and stress in animals. Those methods are not acceptable in any species.

2. The use of the electrical stunning method with a single application leg to leg is ineffective and unacceptable in any species, as it is likely to be painful. The animal welfare concerns are:
   a) accidental pre-stun electric shocks;
   b) inadequate current and voltage;
   c) wrong electrode positioning;
   d) recovery of consciousness.

3. The slaughter method of brain stem severance by piercing through the eye socket or skull bone without prior stunning, is not acceptable in any species.
APPENDIX 3.7.6.

GUIDELINES FOR THE KILLING OF ANIMALS FOR DISEASE CONTROL PURPOSES

Article 3.7.6.1.

General principles

These guidelines are based on the premise that a decision to kill the animals has been made, and address the need to ensure the welfare of the animals until they are dead.

1. All personnel involved in the humane killing of animals should have the relevant skills and competencies. Competence may be gained through formal training and/or practical experience.

2. As necessary, operational procedures should be adapted to the specific circumstances operating on the premises and should address, apart from animal welfare, aesthetics of the method of euthanasia, cost of the method, operator safety, biosecurity and environmental aspects.

3. Following the decision to kill the animals, killing should be carried out as quickly as possible and normal husbandry should be maintained until the animals are killed.

4. The handling and movement of animals should be minimised and when done, it should be done in accordance with the guidelines described below.

5. Animal restraint should be sufficient to facilitate effective killing, and in accordance with animal welfare and operator safety requirements; when restraint is required, killing should follow with minimal delay.

6. When animals are killed for disease control purposes, methods used should result in immediate death or immediate loss of consciousness lasting until death; when loss of consciousness is not immediate, induction of unconsciousness should be non-aversive and should not cause anxiety, pain, distress or suffering in the animals.

7. For animal welfare considerations, young animals should be killed before older animals; for biosecurity considerations, infected animals should be killed first, followed by in-contact animals, and then the remaining animals.

8. There should be continuous monitoring of the procedures by the Competent Authorities to ensure they are consistently effective with regard to animal welfare, operator safety and biosecurity.

9. When the operational procedures are concluded, there should be a written report describing the practices adopted and their effect on animal welfare, operator safety and biosecurity.

10. These general principles should also apply when animals need to be killed for other purposes such as after natural disasters or for culling animal populations.

Article 3.7.6.2.

Organisational structure

Disease control contingency plans should be in place at a national level and should contain details of management structure, disease control strategies and operational procedures; animal welfare considerations should be addressed within these disease control contingency plans. The plans should also include a strategy to ensure that an adequate number of personnel competent in the humane killing of animals is available. Local level plans should be based on national plans and be informed by local knowledge.
Disease control contingency plans should address the animal welfare issues that may result from animal movement controls.

The operational activities should be led by an official veterinarian who has the authority to appoint the personnel in the specialist teams and ensure that they adhere to the required animal welfare and biosecurity standards. When appointing the personnel, he/she should ensure that the personnel involved has the required competencies.

The official veterinarian should be responsible for all activities across one or more affected premises and should be supported by coordinators for planning (including communications), operations and logistics to facilitate efficient operations.

The official veterinarian should provide overall guidance to personnel and logistic support for operations on all affected premises to ensure consistency in adherence to the OIE animal welfare and animal health guidelines.

A specialist team, led by a team leader answerable to the official veterinarian, should be deployed to work on each affected premises. The team should consist of personnel with the competencies to conduct all required operations; in some situations, personnel may be required to fulfil more than one function. Each team should contain a veterinarian or have access to veterinary advice at all times.

In considering the animal welfare issues associated with killing animals, the key personnel, their responsibilities and competencies required are described in Article 3.7.6.3.

Article 3.7.6.3.

Responsibilities and competencies of the specialist team

1. Team leader
   a) Responsibilities:
      i) plan overall operations on affected premises;

         Language consideration.

         ii) determine and address requirements for animal welfare, operator safety and biosecurity;

         iii) organise, brief and manage team of people to facilitate humane killing of the relevant animals on the premises in accordance with national regulations and these guidelines;

         iv) determine logistics required;

         v) monitor operations to ensure animal welfare, operator safety and biosecurity requirements are met;

         vi) report upwards on progress and problems;

         vii) provide a written report at the conclusion of the killing, describing the practices adopted and their effect on the animal welfare, operator safety and biosecurity outcomes.

   b) Competencies

      i) appreciation of normal animal husbandry practices;

      ii) appreciation of animal welfare and the underpinning behavioural, anatomical and physiological processes involved in the killing process;
iii) skills to manage all activities on premises and deliver outcomes on time;
iv) awareness of psychological effects on farmer, team members and general public;
v) effective communication skills;
vi) appreciation of the environmental impacts caused by their operation.

2. Veterinarian
   a) Responsibilities
      i) determine and implement the most appropriate killing method to ensure that animals are killed without avoidable pain and distress;
      ii) determine and implement the additional requirements for animal welfare, including the order of killing;
      iii) ensure that confirmation of animals deaths is carried out by competent persons at appropriate times after the killing procedure;
      iv) minimise the risk of disease spread within and from the premises through the supervision of biosecurity procedures;
      v) continuously monitor animal welfare and biosecurity procedures;
      vi) in cooperation with the leader, prepare a written report at the conclusion of the killing, describing the practices adopted and their effect on animal welfare.
   b) Competencies
      i) ability to assess animal welfare, especially the effectiveness of stunning and killing, and to correct any deficiencies;
      ii) ability to assess biosecurity risks.

3. Accredited animal handlers
   a) Responsibilities
      i) review on-site facilities in terms of their appropriateness;
      ii) design and construct temporary animal handling facilities, when required;
      iii) move and restrain animals;
      iv) continuously monitor animal welfare and biosecurity procedures.
   b) Competencies
      i) animal handling in emergency situations and in close confinement is required;
      ii) an appreciation of biosecurity and containment principles.

4. Animal handler
   a) Responsibilities
i) move and restrain animals;
ii) continuously monitor animal welfare and biosecurity procedures.

b) Competencies
i) animal handling in emergency situations and in close confinement is required;
ii) an appreciation of biosecurity and containment principles.

5. Animal killing personnel
a) Responsibilities
Humane killing of the animals through effective stunning and killing should be ensured.

b) Competencies
i) when required by regulations, licensed to use necessary equipment;
ii) competent to use and maintain relevant equipment;
iii) competent to use techniques for the species involved;
iv) competent to assess effective stunning and killing.

6. Carcass disposal personnel
a) Responsibilities
An efficient carcass disposal (to ensure killing operations are not hindered) should be ensured.

b) Competencies
The personnel should be competent to use and maintain available equipment and apply techniques for the species involved.

7. Farmer/owner/manager
a) Responsibilities
i) assist when requested.

b) Competencies
i) specific knowledge of his/her animals and their environment.

Article 3.7.6.4.

Considerations in planning the humane killing of animals

Many activities will need to be conducted on affected premises, including the humane killing of animals. The team leader should develop a plan for humanely killing animals on the premises which should include consideration of:

1. minimising handling and movement of animals;
2. killing the animals on the affected premises; however, there may be circumstances where the animals may need to be moved to another location for killing; when the killing is conducted at an abattoir, the guidelines in the Chapter on *slaughter* of animals for human consumption should be followed;

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The chapter is currently called Guidelines for the Slaughter of Animals and should be referred to as such.

3. the species, number, age and size of animals to be killed, and the order of killing them;
4. methods of killing the animals, and their cost;
5. housing, husbandry, and location of the animals, as well as accessibility of the farm;
6. the availability and effectiveness of equipment needed for killing of the animals, as well as the time necessary to kill the required number of animals using such methods;
7. the facilities available on the premises that will assist with the killing including any additional facilities that may need to be brought on and then removed from the premises;
8. biosecurity and environmental issues;
9. the health and safety of personnel conducting the killing;
10. any legal issues that may be involved, for example where restricted veterinary drugs or poisons may be used, or where the process may impact on the environment; and
11. the presence of other nearby premises holding animals;
12. possibilities of removal and disposal and destruction of carcasses.

In designing a killing plan, it is essential that the method chosen be consistently reliable to ensure that all animals are humanely and quickly killed.

Article 3.7.6.5.

**Table summarising killing methods described in Articles 3.7.6.6.-3.7.6.17.**

<table>
<thead>
<tr>
<th>Species</th>
<th>Age range</th>
<th>Procedure</th>
<th>Restraint necessary</th>
<th>Animal welfare concerns with inappropriate application</th>
<th>Article reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cattle</td>
<td>all</td>
<td>free bullet</td>
<td>no</td>
<td>non-lethal wounding</td>
<td>3.7.6.6.</td>
</tr>
<tr>
<td></td>
<td>all except neonates</td>
<td>captive bolt - penetrating, followed by pithing or bleeding</td>
<td>yes</td>
<td>ineffective stunning</td>
<td>3.7.6.7.</td>
</tr>
<tr>
<td></td>
<td>adults only</td>
<td>captive bolt - non-penetrating, followed by bleeding</td>
<td>yes</td>
<td>ineffective stunning, regaining of consciousness before killing</td>
<td>3.7.6.8.</td>
</tr>
<tr>
<td></td>
<td>calves only</td>
<td>electrical, two stage application</td>
<td>yes</td>
<td>pain associated with cardiac arrest after ineffective stunning</td>
<td>3.7.6.10.</td>
</tr>
<tr>
<td></td>
<td>calves only</td>
<td>electrical, single application (method 1)</td>
<td>yes</td>
<td>ineffective stunning</td>
<td>3.7.6.11.</td>
</tr>
<tr>
<td>Category</td>
<td>Subjects</td>
<td>Method</td>
<td>Efficacy</td>
<td>Effect</td>
<td></td>
</tr>
<tr>
<td>----------</td>
<td>----------</td>
<td>--------</td>
<td>----------</td>
<td>--------</td>
<td></td>
</tr>
<tr>
<td>Sheep and goats</td>
<td>all</td>
<td>injection with barbiturates and other drugs</td>
<td>yes</td>
<td>non-lethal dose, pain associated with injection site</td>
<td></td>
</tr>
<tr>
<td></td>
<td>all</td>
<td>free bullet</td>
<td>no</td>
<td>non-lethal wounding</td>
<td></td>
</tr>
<tr>
<td></td>
<td>all except neonates</td>
<td>captive bolt - penetrating, followed by pithing or bleeding</td>
<td>yes</td>
<td>ineffective stunning, regaining of consciousness before death</td>
<td></td>
</tr>
<tr>
<td></td>
<td>all except neonates</td>
<td>captive bolt - non-penetrating, followed by bleeding</td>
<td>yes</td>
<td>ineffective stunning, regaining of consciousness before death</td>
<td></td>
</tr>
<tr>
<td></td>
<td>neonates</td>
<td>captive bolt - non-penetrating</td>
<td>yes</td>
<td>non-lethal wounding</td>
<td></td>
</tr>
<tr>
<td></td>
<td>all</td>
<td>electrical, two stage application</td>
<td>yes</td>
<td>pain associated with cardiac arrest after ineffective stunning</td>
<td></td>
</tr>
<tr>
<td></td>
<td>all</td>
<td>electrical, single application (Method 1)</td>
<td>yes</td>
<td>ineffective stunning</td>
<td></td>
</tr>
<tr>
<td></td>
<td>neonates only</td>
<td>CO₂ / air mixture</td>
<td>yes</td>
<td>slow induction of unconsciousness, aversiveness of induction</td>
<td></td>
</tr>
<tr>
<td></td>
<td>neonates only</td>
<td>nitrogen and/or inert gas mixed with CO₂</td>
<td>yes</td>
<td>slow induction of unconsciousness, aversiveness of induction</td>
<td></td>
</tr>
<tr>
<td>Species</td>
<td>Age range</td>
<td>Procedure</td>
<td>Restraint necessary</td>
<td>Animal welfare concerns with inappropriate application</td>
<td>Article reference</td>
</tr>
<tr>
<td>-------------------------</td>
<td>-----------------------</td>
<td>------------------------------------------------</td>
<td>---------------------</td>
<td>--------------------------------------------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>Sheep and goats (contd)</td>
<td>neonates only</td>
<td>nitrogen and/or inert gases</td>
<td>yes</td>
<td>slow induction of unconsciousness,</td>
<td>3.7.6.14.</td>
</tr>
<tr>
<td></td>
<td>all</td>
<td>injection of barbiturates and other drugs</td>
<td>yes</td>
<td>non-lethal dose, pain associated with injection site</td>
<td>3.7.6.15.</td>
</tr>
<tr>
<td>Pigs</td>
<td>all</td>
<td>free bullet</td>
<td>no</td>
<td>Non-lethal wounding</td>
<td>3.7.6.6.</td>
</tr>
<tr>
<td></td>
<td>all except neonates</td>
<td>captive bolt - penetrating, followed by pithing or bleeding</td>
<td>yes</td>
<td>ineffective stunning, regaining of consciousness before death</td>
<td>3.7.6.7.</td>
</tr>
<tr>
<td></td>
<td>neonates only</td>
<td>captive bolt - non-penetrating</td>
<td>yes</td>
<td>Non-lethal wounding</td>
<td>3.7.6.8.</td>
</tr>
<tr>
<td></td>
<td>all §</td>
<td>electrical, two stage application</td>
<td>yes</td>
<td>pain associated with cardiac arrest after ineffective stunning</td>
<td>3.7.6.10.</td>
</tr>
<tr>
<td></td>
<td>all</td>
<td>electrical, single application (Method 1)</td>
<td>yes</td>
<td>ineffective stunning</td>
<td>3.7.6.11.</td>
</tr>
<tr>
<td></td>
<td>neonates only</td>
<td>CO₂ / air mixture</td>
<td>yes</td>
<td>slow induction of unconsciousness, aversiveness of induction</td>
<td>3.7.6.12.</td>
</tr>
<tr>
<td></td>
<td>neonates only</td>
<td>nitrogen and/or inert gas mixed with CO₂</td>
<td>yes</td>
<td>slow induction of unconsciousness, aversiveness of induction</td>
<td>3.7.6.13.</td>
</tr>
<tr>
<td></td>
<td>neonates only</td>
<td>nitrogen and/or inert gases</td>
<td>yes</td>
<td>slow induction of unconsciousness,</td>
<td>3.7.6.14.</td>
</tr>
<tr>
<td></td>
<td>all</td>
<td>injection with barbiturates and other drugs</td>
<td>yes</td>
<td>non-lethal dose, pain associated with injection site</td>
<td>3.7.6.15.</td>
</tr>
<tr>
<td>Poultry</td>
<td>adults only</td>
<td>captive bolt - non-penetrating</td>
<td>yes</td>
<td>ineffective stunning</td>
<td>3.7.6.8.</td>
</tr>
<tr>
<td></td>
<td>day-olds and eggs only</td>
<td>Maceration</td>
<td>no</td>
<td>non-lethal wounding, non-immediacy;</td>
<td>3.7.6.9.</td>
</tr>
<tr>
<td></td>
<td>adults only</td>
<td>electrical single application (Method 2)</td>
<td>yes</td>
<td>ineffective stunning</td>
<td>3.7.6.11.</td>
</tr>
<tr>
<td></td>
<td>adults only</td>
<td>electrical single application, followed by killing (Method 3)</td>
<td>yes</td>
<td>ineffective stunning; regaining of consciousness before death</td>
<td>3.7.6.11.</td>
</tr>
<tr>
<td>Species</td>
<td>Age range</td>
<td>Procedure</td>
<td>Restraint necessary</td>
<td>Animal welfare concerns with inappropriate application</td>
<td>Article reference</td>
</tr>
<tr>
<td>--------------------</td>
<td>-----------</td>
<td>------------------------------------</td>
<td>---------------------</td>
<td>--------------------------------------------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>Poultry (contd)</td>
<td>all</td>
<td>CO₂ / air mixture</td>
<td>yes</td>
<td>slow induction of unconsciousness, aversiveness of induction</td>
<td>3.7.6.12.</td>
</tr>
<tr>
<td></td>
<td>all</td>
<td>nitrogen and/or inert gas mixed with CO₂</td>
<td>yes, yes</td>
<td>slow induction of unconsciousness, aversiveness of induction</td>
<td>3.7.6.13.</td>
</tr>
<tr>
<td></td>
<td>all</td>
<td>nitrogen and/or inert gases</td>
<td>yes, yes</td>
<td>slow induction of unconsciousness</td>
<td>3.7.6.14.</td>
</tr>
<tr>
<td></td>
<td>all</td>
<td>injection of barbiturates and other drugs</td>
<td>yes</td>
<td>non-lethal dose, pain associated with injection site</td>
<td>3.7.6.15.</td>
</tr>
<tr>
<td>adults only</td>
<td>all</td>
<td>addition of anaesthetics to feed or water, followed by an appropriate killing method</td>
<td>no</td>
<td>ineffective or slow induction of unconsciousness</td>
<td>3.7.6.16.</td>
</tr>
</tbody>
</table>

**SRB**

For consistency, should use small letters throughout the tables.

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

§ The only preclusion against the use of this method for neonates is the design of the stunning tongs that may not facilitate their application across such a small-sized head/body.

Article 3.7.6.6.

**Free bullet**

1. Introduction

   a) A free bullet is a projectile fired from a shotgun, rifle, handgun or purpose-made humane killer.

   b) The most commonly used firearms for close range use are:

      i) humane killers (specially manufactured/adapted single-shot weapons);

      ii) shotguns (12, 16, 20, 28 bore and .410);

      iii) rifles (.22 rimfire);

      iv) handguns (various calibres from .32 to .45).

   c) The most commonly used firearms for long range use are rifles (.22, .243, .270 and .308).

   d) A free bullet used from long range should be aimed to penetrate the skull or soft tissue at the top of the neck of the animal, to cause irreversible concussion and death and should only be used by properly trained and competent marksmen.
2. **Requirements for effective use**

   a) The marksman should take account of human safety in the area in which he/she is operating. Appropriate vision and hearing protective devices should be worn by all personnel involved.

   b) The marksman should ensure that the animal is not moving and in the correct position to enable accurate targeting and the range should be as short as possible (5 –50 cm for a shotgun) but the barrel should not be in contact with the **animal's head** of the animal.

| SRB |
| Language consideration. |

   c) The correct cartridge, calibre and type of bullet for the different species age and size should be used. Ideally the ammunition should expand upon impact and dissipate its energy within the cranium.

   d) Shot animals should be checked to ensure the absence of brain stem reflexes.

**Figure 1.** The optimum shooting position for cattle is at the intersection of two imaginary lines drawn from the rear of the eyes to the opposite horn buds.

![Figure 1](image1)

**Figure 2.** The optimum position for hornless sheep and goats is on the midline.

![Figure 2](image2)

**Figure 3.** The optimum shooting position for heavily horned sheep and horned goats is behind the poll aiming towards the angle of the jaw.

![Figure 3](image3)
3. **Advantages**
   
a) Used properly, a free bullet provides a quick and effective method for killing.

b) It requires minimal or no restraint and can be used to kill from a distance by properly trained and competent marksmen.

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<tbody>
<tr>
<td>The killing from a distance in this sentence is taken too lightly. It should be specified that this only refers to specially trained marksmen for animals that have to be shot from far away.</td>
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</tbody>
</table>

c) It is suitable for killing agitated animals in open spaces.

4. **Disadvantages**
   
a) The method is potentially dangerous to humans and other animals in the area.

b) It has the potential for non-lethal wounding.
c) Destruction of brain tissue may preclude diagnosis of some diseases.

d) Leakage of bodily fluids may present a biosecurity risk.

e) Legal requirements may preclude or restrict use.

f) There is a limited availability of competent personnel.

4. Conclusions

The method is suitable for cattle, sheep, goats and pigs, including large animals in open spaces.

Article 3.7.6.7.

Penetrating captive bolt

1. Introduction

A penetrating captive bolt is fired from a gun powered by either compressed air or a blank cartridge. There is no free projectile.

The captive bolt should be aimed on the skull in a position to penetrate the cortex and mid-brain of the animal. The impact of the bolt on the skull produces unconsciousness. Physical damage to the brain caused by penetration of the bolt may result in death, however pithing or bleeding should be performed as soon as possible after the shot to ensure the death of the animal.

2. Requirements for effective use

a) For cartridge powered and compressed air guns, the bolt velocity and the length of the bolt should be appropriate to the species and type of animal, in accordance with the manufacturer's recommendations of the manufacturer.

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b) Captive bolt guns should be frequently cleaned and maintained in good working condition.

c) More than one gun may be necessary to avoid overheating and a back-up gun should be available in the event of an ineffective shot.

d) Animals should be restrained; at a minimum they should be penned for cartridge powered guns and in a race for compressed air guns.

e) The operator should ensure that the animal's head of the animal is accessible.

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f) The operator should fire the captive bolt at right angles to the skull in the optimal position (see figures 1, 3 & 4. The optimum shooting position for hornless sheep is on the highest point of the head, on the midline and aim towards the angle of the jaw).

g) To ensure the death of the animal, pithing or bleeding should be performed as soon as possible after stunning.
h) Animals should be monitored continuously after stunning until death to ensure the absence of brain stem reflexes.

3. **Advantages**

   a) Mobility of cartridge powered equipment reduces the need to move animals.

   b) The method induces an immediate onset of a sustained period of unconsciousness.

4. **Disadvantages**

   a) Poor gun maintenance and misfiring, and inaccurate gun positioning and orientation may result in poor animal welfare.

   b) Post stun convulsions may make pithing difficult and hazardous.

   c) The method is difficult to apply in agitated animals.

   d) Repeated use of a cartridge powered gun may result in over-heating.

   e) Leakage of bodily fluids may present a biosecurity risk.

   f) Destruction of brain tissue may preclude diagnosis of some diseases.

5. **Conclusions**

   The method is suitable for cattle, sheep, goats and pigs (except neonates), when followed by pithing or bleeding.

   Article 3.7.6.8.

**Captive bolt - non-penetrating**

1. **Introduction**

   A non-penetrating captive bolt is fired from a gun powered by either compressed air or a blank cartridge. There is no free projectile.

   The gun should be placed on the front of the skull to deliver a percussive blow which produces unconsciousness in cattle (adults only), sheep, goats and pigs, and death in poultry and neonate sheep, goats and pigs. Bleeding should be performed as soon as possible after the blow to ensure the death of the animal.

2. **Requirements for effective use**

   a) For cartridge powered and compressed air guns, the bolt velocity should be appropriate to the species and type of animal, in accordance with the manufacturer's recommendations of the manufacturer.

   b) Captive bolt guns should be frequently cleaned and maintained in good working condition.

   c) More than one gun may be necessary to avoid overheating and a back-up gun should be available in the event of an ineffective shot.

   d) Animals should be restrained; at a minimum mammals should be penned for cartridge powered guns and in a race for compressed air guns; birds should be restrained in cones, shackles, crushes or by hand.
e) The operator should ensure that the animal’s head of the animal is accessible.

f) The operator should fire the captive bolt at right angles to the skull in the optimal position (figures 1-4).

g) To ensure death in non-neonate mammals, bleeding should be performed as soon as possible after stunning.

h) Animals should be monitored continuously after stunning until death to ensure the absence of brain stem reflexes.

3. **Advantages**

   a) The method induces an immediate onset of unconsciousness, and death in birds and neonate mammals.

   b) Mobility of equipment reduces the need to move animals.

4. **Disadvantages**

   a) As consciousness can be regained quickly in non-neonate mammals, they should be bled as soon as possible after stunning.

   b) Laying hens in cages have to be removed from their cages and most birds have to be restrained.

   c) Poor gun maintenance and misfiring, and inaccurate gun positioning and orientation may result in poor animal welfare.

   d) Post stun convulsions may make bleeding difficult and hazardous.

   e) Difficult to apply in agitated animals; such animals may be sedated in advance of the killing procedure.

   f) Repeated use of a cartridge powered gun may result in over-heating.

   g) Bleeding may present a biosecurity risk.

5. **Conclusions**

   a) The method is suitable for poultry, and neonate sheep, goats and pigs.

   b) If bleeding does not present a biosecurity issue, this is a suitable method for cattle (adults only), and non-neonate sheep, goats and pigs when followed by bleeding.

**Maceration**

1. **Introduction**

   Maceration, utilising a mechanical apparatus with rotating blades or projections, causes immediate fragmentation and death in day-old poultry and embryonated eggs.

2. **Requirements**

   a) Maceration requires specialised equipment which should be kept in excellent working order.
b) The rate of introducing the birds should not allow the equipment to jam, birds to rebound from the blades or the birds to suffocate before they are macerated.

3. Advantages
   a) Procedure results in immediate death.
   b) Large numbers can be killed quickly.

4. Disadvantages
   a) Specialised equipment is required.
   b) Macerated tissues may present a biosecurity or human health issue.
   c) The cleaning of the equipment can be a source of contamination.

5. Conclusion
   The method is suitable for killing day-old poultry and embryonated eggs.

Article 3.7.6.10.

Electrical – two stage application

1. Introduction
   A two stage application of electric current comprises firstly an application of current to the head by scissor-type tongs, immediately followed by an application of the tongs across the chest in a position that spans the heart.

   The application of sufficient electric current to the head will induce ‘tonic/clonic’ epilepsy and unconsciousness. Once the animal is unconscious, the second stage will induce ventricular fibrillation (cardiac arrest) resulting in death. The second stage (the application of low frequency current across the chest) should only be applied to unconscious animals to prevent unacceptable levels of pain.

   Figure 5. Scissor-type stunning tongs.

2. Requirements for effective use
   a) The stunner control device should generate a low frequency (30 – 60 Hz) current with a minimum voltage of 250 volts true RMS under load.
   b) Appropriate protective clothing (including rubber gloves and boots) should be worn.
   c) Animals should be restrained, at a minimum free-standing in a pen, close to an electrical supply.
   d) Two team members are required, the first to apply the electrodes and the second to manipulate the position of the animal to allow the second application to be made.
   e) A stunning current should be applied via scissor-type stunning tongs in a position that spans the brain for a minimum of 3 seconds; immediately following the application to the head, the electrodes should be transferred to a position that spans the heart and the electrodes applied for a minimum of 3 seconds.
f) Electrodes should be cleaned regularly and after use, to enable optimum electrical contact to be maintained.

g) Animals should be monitored continuously after stunning until death to ensure the absence of brain stem reflexes.

3. **Advantages**
   
a) The application of the second stage minimises post-stun convulsions and therefore the method is particularly effective with pigs.

b) Non-invasive technique minimises biosecurity risk.

4. **Disadvantages**
   
a) The method requires a reliable supply of electricity.

b) The electrodes must be applied and maintained in the correct positions to produce an effective stun and kill.

c) Most stunner control devices utilise low voltage impedance sensing as an electronic switch prior to the application of high voltages; in unshorn sheep, contact impedance may be too high to switch on the required high voltage (especially during stage two).

d) The procedure may be physically demanding, leading to operator fatigue and poor electrode placement.

5. **Conclusion**

   The method is suitable for calves, sheep and goats, and especially for pigs (over one week of age).

   **Article 3.7.6.11.**

**Electrical – single application**

1. **Method 1**

   Method 1 comprises the single application of sufficient electrical current to the head and back, to simultaneously stun the animal and fibrillate the heart. Provided sufficient current is applied in a position that spans both the brain and heart, the animal will not recover consciousness.

a) **Requirements for effective use**

   i) The stunner control device should generate a low frequency (30 – 60 Hz) current with a minimum voltage of 250 volts true RMS under load.

   ii) Appropriate protective clothing (including rubber gloves and boots) should be worn.

   iii) Animals should be individually and mechanically restrained close to an electrical supply as the maintenance of physical contact between the stunning electrodes and the animal is necessary for effective use.

   iv) The rear electrode should be applied to the back, above or behind the heart, and then the front electrode in a position that is forward of the eyes, with current applied for a minimum of 3 seconds.

   v) Electrodes should be cleaned regularly between animals and after use, to enable optimum electrical contact to be maintained.
vi) Water or saline may be necessary to improve electrical contact with sheep.

vii) An effective stun and kill should be verified by the absence of brain stem reflexes.

b) Advantages

i) Method 1 stuns and kills simultaneously.

ii) It minimises post-stun convulsions and therefore is particularly effective with pigs.

iii) A single team member only is required for the application.

iv) Non-invasive technique minimises biosecurity risk.

c) Disadvantages

i) Method 1 requires individual mechanical animal restraint.

ii) The electrodes must be applied and maintained in the correct positions to produce an effective stun and kill.

iii) Method 1 requires a reliable supply of electricity.

d) Conclusion

Method 1 is suitable for calves, sheep, goats, and pigs (over 1 week of age).

2. Method 2

Method 2 stuns and kills by drawing inverted and shackled poultry through an electrified waterbath stunner. Electrical contact is made between the ‘live’ water and earthed shackle and, when sufficient current is applied, poultry will be simultaneously stunned and killed.

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**SRB**

Waterbath as one word does not exist in the dictionary. Consider making an OIE definition.

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a) Requirements for effective use

i) A mobile waterbath stunner and a short loop of processing line are required.

ii) A low frequency (30-60 Hz) current applied for a minimum of 3 seconds is necessary to stun and kill the birds.

iii) Poultry need to be manually removed from their cage, house or yard, inverted and shackled onto a line which conveys them through a waterbath stunner with their heads fully immersed.

iv) The required minimum currents to stun and kill dry birds are:

- Quail - 100 mA/bird
- Chickens – 160 mA/bird
- Ducks & Geese – 200 mA/bird
- Turkeys – 250 mA/bird.

A higher current is required for wet birds.

v) An effective stun and kill should be verified by the absence of brain stem reflexes.
b) Advantages
   i) Method 2 stuns and kills simultaneously.
   ii) It is capable of processing large numbers of birds reliably and effectively.
   iii) This non-invasive technique minimises biosecurity risk.

c) Disadvantages
   i) Method 2 requires a reliable supply of electricity.
   ii) Handling, inversion and shackling of birds are required.

d) Conclusion
   Method 2 is suitable for large numbers of poultry.

3. **Method 3**

Method 3 comprises the single application of sufficient electrical current to the head of poultry in a position that spans the brain, causing unconsciousness; this is followed by a killing method (Article 3.7.6.17.).

a) Requirements for effective use
   i) The stunner control device should generate sufficient current (more than 300 mA/bird) to stun.
   ii) Appropriate protective clothing (including rubber gloves and boots) should be worn.
   iii) Birds should be restrained, at a minimum manually, close to an electrical supply.
   iv) A stunning current should be applied in a position that spans the brain for a minimum of 3 seconds; immediately following this application, the birds should be killed (Article 3.7.6.17.).
   v) Electrodes should be cleaned regularly and after use, to enable optimum electrical contact to be maintained.
   vi) Birds should be monitored continuously after stunning until death to ensure the absence of brain stem reflexes.

b) Advantages

Non-invasive technique (when combined with cervical dislocation) minimises biosecurity risk.

c) Disadvantages
   i) Method 3 requires a reliable supply of electricity.
   ii) The electrodes must be applied and maintained in the correct position to produce an effective stun.
   iii) Birds must be individually restrained.
   iv) It must be followed by a killing method.

d) Conclusion

Method 3 is suitable for small numbers of poultry.
CO₂ / air mixture (under study)

1. Introduction

Controlled atmosphere killing is performed by exposing animals to a predetermined gas mixture, either by placing them in a gas-filled container or apparatus (Method 1) or by the gas being introduced into a poultry house (Method 2).

Inhalation of carbon dioxide (CO₂) induces respiratory and metabolic acidosis and hence reduces the pH of cerebrospinal fluid (CSF) and neurones thereby causing unconsciousness and, after prolonged exposure, death.

2. Method 1

The animals are placed in a gas-filled container or apparatus.

a) Requirements for effective use in a container or apparatus

i) Containers or apparatus should allow the required gas concentration to be maintained and accurately measured.

ii) When animals are exposed to the gas individually or in small groups in a container or apparatus, the equipment used should be designed, constructed, and maintained in such a way as to avoid injury to the animals and allow them to be observed.

iii) Animals should be introduced into the container or apparatus after it has been filled with the required CO₂ concentration, and held in this atmosphere until death is confirmed.

iv) Team members should ensure that there is sufficient time allowed for each batch of animals to die before subsequent ones are introduced into the container or apparatus.

v) Containers or apparatus should not be overcrowded and measures are needed to avoid animals suffocating by climbing on top of each other.

b) Advantages

i) CO₂ is readily available.

ii) Application methods are simple.

c) Disadvantages

i) The need for properly designed container or apparatus.

ii) The aversive nature of high CO₂ concentrations.

iii) No immediate loss of consciousness.

iv) The risk of suffocation due to overcrowding.

v) Difficulty in verifying death while the animals are in the container or apparatus.

d) Conclusion

Method 1 is suitable for use in poultry and neonatal sheep, goats and pigs.
3. **Method 2**

The gas is introduced into a poultry house.

a) Requirements for effective use in a poultry house

   i) Prior to introduction of the CO\(_2\), the poultry house should be appropriately sealed to allow control over the gas concentration.

   ii) The house should be gradually filled with CO\(_2\) so that all birds are exposed to a concentration of >40% until they are dead; a vaporiser may be required to prevent freezing.

   iii) Devices should be used to accurately measure the gas concentration at the maximum height accommodation of birds.

b) Advantages

   i) Applying gas to birds *in situ* eliminates the need to manually remove live birds.

   ii) CO\(_2\) is readily available.

   iii) Gradual raising of CO\(_2\) concentration minimises the aversiveness of the induction of unconsciousness.

c) Disadvantages

   i) It is difficult to determine volume of gas required to achieve adequate concentrations of CO\(_2\) in some poultry houses.

   ii) It is difficult to verify death while the birds are in the poultry house.

d) Conclusion

   Method 2 is suitable for use in poultry in closed-environment sheds.

*Article 3.7.6.13.*

**Nitrogen and/or inert gas mixed with CO\(_2\)**

1. **Introduction**

   CO\(_2\) may be mixed in various proportions with nitrogen or an inert gas (e.g., argon), and the inhalation of such mixtures leads to hypercapnic-hypoxia and death when the oxygen concentration by volume is \(\leq 2\%\). This method involves the introduction of animals into a *container* or apparatus containing the gases. Such mixtures do not induce immediate loss of consciousness, therefore the aversiveness of various gas mixtures containing high concentrations of CO\(_2\) and the respiratory distress occurring during the induction phase, are important animal welfare considerations.

   Pigs and poultry appear not to find low concentrations of CO\(_2\) strongly aversive, and a mixture of nitrogen or argon with \(\leq 30\%\) CO\(_2\) by volume and \(\leq 2\%\) O\(_2\) by volume can be used for killing poultry and neonatal sheep, goats and pigs.

2. **Requirements for effective use**

   a) *Containers* or apparatus should allow the required gas concentrations to be maintained, and the O\(_2\) and CO\(_2\) concentrations accurately measured during the killing procedure.
b) When animals are exposed to the gases individually or in small groups in a container or apparatus, the equipment used should be designed, constructed, and maintained in such a way as to avoid injury to the animals and allow them to be observed.

c) Animals should be introduced into the container or apparatus after it has been filled with the required gas concentrations (with $\leq 2\%$ O$_2$), and held in this atmosphere until death is confirmed.

d) Team members should ensure that there is sufficient time allowed for each batch of animals to die before subsequent ones are introduced into the container or apparatus.

e) Containers or apparatus should not be overcrowded and measures are needed to avoid animals suffocating by climbing on top of each other.

3. **Advantages**

Low concentrations of CO$_2$ cause little aversiveness and, in combination with nitrogen or an inert gas, produces a fast induction of unconsciousness.

4. **Disadvantages**

a) A properly designed container or apparatus is needed.

b) It is difficult to verify death while the animals are in the container or apparatus.

c) There is no immediate loss of consciousness.

d) Exposure times required to kill are considerable.

5. **Conclusion**

The method is suitable for poultry and neonatal sheep, goats and pigs.

**Article 3.7.6.14.**

**Nitrogen and/or inert gases**

1. **Introduction**

This method involves the introduction of animals into a container or apparatus containing nitrogen or an inert gas such as argon. The controlled atmosphere produced leads to unconsciousness and death from hypoxia.

Research has shown that hypoxia is not aversive to pigs and poultry, and it does not induce any signs of respiratory distress prior to loss of consciousness.

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2. **Requirements for effective use**

a) Containers or apparatus should allow the required gas concentrations to be maintained, and the O$_2$ concentration accurately measured.

b) When animals are exposed to the gases individually or in small groups in a container or apparatus, the equipment used should be designed, constructed, and maintained in such a way as to avoid injury to the animals and allow them to be observed.
c) Animals should be introduced into the container or apparatus after it has been filled with the required gas concentrations (with ≤2% \( \text{O}_2 \)), and held in this atmosphere until death is confirmed.

d) Team members should ensure that there is sufficient time allowed for each batch of animals to die before subsequent ones are introduced into the container or apparatus.

e) Containers or apparatus should not be overcrowded and measures are needed to avoid animals suffocating by climbing on top of each other.

3. Advantages

Animals are unable to detect nitrogen or inert gases, and the induction of hypoxia by this method is not aversive to animals.

4. Disadvantages

a) A properly designed container or apparatus is needed.

b) It is difficult to verify death while the animals are in the container or apparatus.

c) There is no immediate loss of consciousness.

d) Exposure times required to kill are considerable.

5. Conclusion

The method is suitable for poultry and neonatal sheep, goats and pigs.

Article 3.7.6.15.

Lethal injection

1. Introduction

A lethal injection using high doses of anaesthetic and sedative drugs causes CNS depression, unconsciousness and death. In practice, barbiturates in combination with other drugs are commonly used.

2. Requirements for effective use

a) Doses and routes of administration that cause rapid loss of consciousness followed by death should be used.

b) Prior sedation may be necessary for some animals.

c) Intravenous administration is preferred, but intraperitoneal or intramuscular administration may be appropriate, especially if the agent is non-irritating.

d) Animals should be restrained to allow effective administration.

e) Animals should be monitored to ensure the absence of brain stem reflexes.

3. Advantages

a) The method can be used in all species.

b) Death can be induced smoothly.
4. **Disadvantages**
   a) Restraint and/or sedation may be necessary prior to injection.
   b) Some combinations of drug type and route of administration may be painful, and should only be used in unconscious animals.
   c) Legal requirements and skill/training required may restrict use to veterinarians.
   d) Contaminated carcasses may present a risk to other wild or domestic animals.

5. **Conclusion**
   The method is suitable for killing small numbers of cattle, sheep, goats, pigs and poultry.

**Article 3.7.6.16.**

**Addition of anaesthetics to feed or water**

1. **Introduction**
   An anaesthetic agent which can be mixed with poultry feed or water may be used to kill poultry in houses. Poultry which are only anaesthetised need to be killed by another method such as cervical dislocation.

2. **Requirements for effective use**
   a) Sufficient quantities of anaesthetic need to be ingested rapidly for effective response.
   b) Intake of sufficient quantities is facilitated if the birds are fasted or water is withheld.
   c) Must be followed by killing (see Article 3.7.6.17) if birds are anaesthetised only.

3. **Advantages**
   a) Handling is not required until birds are anaesthetised.
   b) There may be biosecurity advantages in the case of large numbers of diseased birds.

4. **Disadvantages**
   a) Non-target animals may accidentally access the medicated feed or water when provided in an open environment.
   b) Dose taken is unable to be regulated and variable results may be obtained.
   c) Animals may reject adulterated feed or water due to illness or adverse flavour.
   d) The method may need to be followed by killing.
   e) Care is essential in the preparation and provision of treated feed or water, and in the disposal of uneaten treated feed/water and contaminated carcasses.

5. **Conclusion**
   The method is suitable for killing large numbers of poultry in houses.

**Article 3.7.6.17.**
Killing methods for use on unconscious animals

1. Method 1: Cervical dislocation (manual and mechanical)
   a) Introduction
   Poultry may be killed by either manual cervical dislocation (stretching) or mechanical neck crushing with a pair of pliers. Both methods result in death from asphyxiation and/or cerebral anoxia.
   b) Requirements for effective use
   i) Killing should be performed either by manually or mechanically stretching the neck to sever the spinal cord or by using mechanical pliers to crush the cervical vertebrae with consequent major damage to the spinal cord.
   ii) Consistent results require strength and skill so team members should be rested regularly to ensure consistently reliable results.
   iii) Birds should be monitored continuously until death to ensure the absence of brain stem reflexes.
   c) Advantages
   i) It is a non-invasive killing method.
   ii) It can be performed manually on small birds.
   d) Disadvantages
   i) Operator fatigue.
   ii) The method is more difficult in larger birds.
   e) Conclusion
   This method is suitable for killing unconscious poultry.

2. Method 2: Decapitation
   a) Introduction
   Decapitation results in death by cerebral ischaemia using a guillotine or knife.
   b) Requirements for effective use
   The required equipment should be kept in good working order.
   c) Advantages
   The technique is effective and does not require monitoring.
   d) Disadvantages
   The working area is contaminated with body fluids, which increases biosecurity risk.

SRB
Considering contamination by body fluids a comment about increased biosecurity risk should be mentioned.
e) Conclusion

This method is suitable for killing unconscious poultry.

3. Method 3: Pithing

a) Introduction

Pithing is a method of killing animals which have been stunned by a penetrating captive bolt, without immediate death. Pithing results in the physical destruction of the brain and upper regions of the spinal cord, through the insertion of a rod or cane through the bolt hole.

b) Requirements for effective use

i) Pithing cane or rod is required.

ii) An access to the head of the animal and to the brain through the skull is required.

iii) Animals should be monitored continuously until death to ensure the absence of brain stem reflexes.

c) Advantages

The technique is effective in producing immediate death.

d) Disadvantages

i) A delayed and/or ineffective pithing due to convulsions may occur.

ii) The working area is contaminated with body fluids, which increases biosecurity risk.

Considering contamination by body fluids a comment about increased biosecurity risk should be mentioned.

e) Conclusion

This method is suitable for killing unconscious animals which have been stunned by a penetrating captive bolt.

4. Method 4: Bleeding

a) Introduction

Bleeding is a method of killing animals through the severance of the major blood vessels in the neck or chest that results in a rapid fall in blood pressure, leading to cerebral ischaemia and death.

b) Requirements for effective use

i) A sharp knife is required.

ii) An access to the neck or chest of the animal is required.

iii) Animals should be monitored continuously until death to ensure the absence of brain stem reflexes.

c) Advantages

The technique is effective in producing death after an effective stunning method which does not permit pithing.
d) Disadvantages

a) A delayed and/or ineffective bleeding due to convulsions may occur.

b) The working area is contaminated with body fluids, which increases biosecurity risk.

**SRB**

Considering contamination by body fluids a comment about increased biosecurity risk should be mentioned.

e) Conclusion

This method is suitable for killing unconscious animals.
7. List of resources to be used to improve the diagrams on slaughter and killing for disease purposes within guidelines on animal welfare
New Zealand

Biosecurity New Zealand
Date of consultation: 24/08/06. The pictures do not load on line, contacted Dr. Bayvel regarding this issue.

United States of America

1. UC Davis School of Veterinary Medicine
   a) http://www.vetmed.ucdavis.edu/vetext/INF-AN/INF-AN_EMERGEUTH-SHEEPGOAT.HTML
   Date of consultation: 24/08/06. Pictures on sheep and goats.
   b) http://www.vetmed.ucdavis.edu/vetext/INF-AN/INF-AN_EMERGEUTH-HORSES.HTML
   Date of consultation: 24/08/06. Pictures on horses.

2. American Association of Swine Veterinarians
   http://www.aasp.org/aasv/euthanasia.pdf
   Date of consultation: 24/08/06. Pictures on pigs can be found on page 4 of the document.

Canada

1. Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA)
   a) http://www.omafra.gov.on.ca/english/livestock/animalcare/facts/info_euthanasia_cc.htm#penetrating
   Date of consultation: 24/08/06. Pictures on cattle.
   b) http://www.omafra.gov.on.ca/english/livestock/animalcare/facts/info_euthanasia_shgt.htm
   Date of consultation: 24/08/06. Pictures on sheep and goats.

2. Canadian Agri-Food Research Council
   Date of consultation: 24/08/06. Pictures on pigs are found on page 48 of the document.

3. Canadian Veterinary Medical Association (CVMA)
8. Letter to the Delegates of Member Countries regarding National Animal Welfare Focal Points
The Director General

Our Ref: SK/CC 60.2026

Paris, 21 August 2006

Subject: National Animal Welfare Focal Points

Dear Delegate to the OIE,

As you are aware, following the decision of OIE Member Countries in 2001, the OIE has undertaken an international leadership role in the important field of animal welfare. Key achievements during the OIE’s third strategic plan (2001-2005) include the following:

- Establishment of the OIE Permanent Animal Welfare Working Group (PAWWG) with a substantial and detailed annual work programme;
- Hosting the successful OIE Global Conference on Animal Welfare in February 2004 (Proceedings available on OIE website and in publications);
- Adoption of four sets of animal welfare guidelines in May 2005; and

Furthermore, the OIE has confirmed an ongoing commitment to animal welfare in the OIE fourth strategic plan (2006-2010).

At the 74th General Session the International Committee passed resolution XXIV, which includes the following undertakings in relation to OIE’s animal welfare work program:

- active involvement of Veterinary Services in each Member Country in the preparation, review and implementation of animal welfare regulations and legislation, with national animal welfare contact points established on behalf of the OIE Delegates to facilitate communication;
- all Member Countries to play an active role in their Regions with relevant stakeholders, including institutions, non-governmental organisations, and with the private sector in the development and implementation of OIE guidelines on animal welfare; and
Regional Commissions and Representations to play an active role in promoting this OIE initiative (particularly in relation to animal welfare in education), with active involvement of Working Group regional members.

I now request that you provide to the OIE the relevant details of your animal welfare focal point. This focal point will of course work on behalf of the delegate and under his/her responsibility. The OIE will undertake to include animal welfare as a standing agenda item in OIE Regional Commission meetings and I also ask that you consider how PAWWG members can be supported to engage more closely with Regional Commissions in future.

I look forward to receiving your advice on these issues with the goal of furthering the implementation of Resolution XXIV.

Yours sincerely

Bernard Vallat
9. Draft letter to the Delegates of Member Countries regarding Animal Welfare in Veterinary Curriculum and Animal Welfare Research Funding (based on draft letters provided by Dr. Bayvel)
Dear Delegate

Animal Welfare Research Funding

Animal Welfare in Veterinary and Agricultural Curriculum

As part of the OIE fourth strategic plan (2006-2010), the International Committee passed Resolution No. XXIV at the 74th General Session which includes the following undertakings in relation to OIE’s animal welfare work program:

- all Member Countries to play an active role in their Regions with relevant stakeholders, including institutions, non-governmental organisations, and with the private sector in the development and implementation of OIE guidelines on animal welfare; and
- Regional Commissions and Representations to play an active role in promoting this OIE initiative (particularly in relation to animal welfare in education), with active involvement of Working Group regional members.

In this context, the OIE would like to request that you participate in these undertakings by raising awareness about this important OIE mandate in your country. In particular, the OIE Permanent Animal Welfare Working Group (PAWWG) has defined two areas of priority:

1) encouraging inclusion of animal welfare teaching at the undergraduate level at all Veterinary and Agricultural Science Faculties; and

2) promoting involvement of potential sources of animal welfare research funding (e.g., Industry Groups, Animal Welfare Non Governmental Organisations and Government Funding Agencies).

For your convenience, I have attached two sample letters that you may wish to use as a template for your initial contact with the funding agencies and veterinary and agricultural faculties. If you require more information regarding this OIE mandate, please contact us or consult the OIE website at www.oie.int.

I thank you for your assistance and I look forward to receiving your advice on these issues with the goal of furthering the implementation of Resolution No. XXIV.

Yours sincerely
Letter to All Veterinary and Agricultural Science Faculties

Dear

Animal Welfare Teaching at the Undergraduate Level

As the Chief Veterinary Officer of __________ and a __________ Delegate to the World Organisation for Animal Health (OIE) I would like to inform you about the recent progress in the field of animal welfare on the global scale, and the impact that this development will have on the veterinary and agricultural professions.

The OIE has been at the forefront of animal disease control (including zoonoses) since its foundation in 1924, and as such has contributed to the health and welfare of animals for more than 80 years. Currently the OIE represents 167 Member Countries. The primary goal of the OIE is to collect, analyse and disseminate scientific veterinary information and to ensure transparency in the global animal disease and zoonosis situation. In its work, the OIE utilises the knowledge of international experts representing all of the regions of the globe.

Since 2001, the OIE has undertaken an active international leadership role to promote animal welfare through a science-based approach. Key achievements of the OIE in the last few years have included the following:

- Establishment of the OIE Permanent Animal Welfare Working Group in 2002
- Hosting of the successful OIE Global Conference on Animal Welfare in February 2004 (Proceedings available on the OIE website and in publications) and planning of the 2nd OIE Global Conference on Animal Welfare for 2008
- Adoption of four sections of animal welfare guidelines in May 2005
- Ongoing commitment to animal welfare in the OIE fourth strategic plan (2006-2010)
The OIE approach to this complex, multi-faceted, international and domestic public policy issue, with important scientific, ethical, economic and political dimensions is unique. The transparent approach to this issue has engaged all of the stakeholders in this field, including veterinary, agricultural, industry, research and animal protection organisations; some with decades of experience in different aspects of animal welfare.

This strategic initiative is being accorded high priority and the OIE is strongly supportive of a greater emphasis being placed on animal welfare and ethics in undergraduate teaching curricula. Due to the increased awareness of the public and the industry, it is evident that there is a considerable need for, comprehensive and contemporary teaching in this area.

Definite progress in this regard had been made in a number of countries, over the last two decades, with chairs of animal welfare science established in Universities in the UK, Europe, North America, New Zealand and Australia.

On the basis of all of the above, I would like to seek your support for increasing the profile of animal welfare and ethics in the undergraduate teaching curriculum within your institution.

If you would like to receive more information on the types of teaching programmes, which have been developed internationally, and individuals with internationally recognised experience and expertise, I would be glad to provide details of appropriate academic contacts within your region.

Additional information on the animal welfare mandate of the OIE may also be found on the OIE website at www.oie.int.

Yours sincerely
2006 DRAFT LETTER

Letter to potential sources of animal welfare research funding including Industry Groups, Animal Welfare Non Governmental Organisations and Government Funding Agencies

Dear

Animal Welfare Research Funding

As the Chief Veterinary Officer of _________ and a _________ Delegate to the World Organisation for Animal Health (OIE) I would like to inform you about the recent progress in the field of animal welfare on the global scale, and the impact that this development will have on the need for scientific research and appropriate funding in this complex field.

The OIE has been at the forefront of animal disease control (including zoonoses) since its foundation in 1924, and as such has contributed to the health and welfare of animals for more than 80 years. Currently the OIE represents 167 Member Countries. The primary goal of the OIE is to collect, analyse and disseminate scientific veterinary information and to ensure transparency in the global animal disease and zoonosis situation. In its work, the OIE utilises the knowledge of international experts representing all of the regions of the globe.

Since 2001, the OIE has undertaken an active international leadership role to promote animal welfare through a science-based approach. Key achievements of the OIE in the last few years have included the following:

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Ongoing commitment to animal welfare in the OIE fourth strategic plan (2006-2010)

The OIE approach to this complex, multi-faceted, international and domestic public policy issue, with important scientific, ethical, economic and political dimensions is unique. The transparent approach to this issue has engaged all of the stakeholders in this field, including veterinary, agricultural, industry, research and animal protection organisations; some with decades of experience in different aspects of animal welfare.

Regarding scientific research in the field of animal welfare, a number of international organisations, such as the UK Universities Federation of Animal Welfare (UFAW), have played a major role in promoting the importance and value of this research. The UFAW view is expressed clearly in the highly respected international journal “Animal Welfare” as follows:

“Improvements in the care of animals are not likely to come of their own accord, merely by wishing them: there must be research...and it is in sponsoring research of this kind, and making its results widely known, that UFAW performs one of its most valuable services.”

Sir Peter Medawar CBE FRS, 8 May 1957

Nobel Laureate (1960), chairman of the UFAW Scientific Advisory Committee (1951-1962)

Significant efforts have also been made internationally to identify animal welfare research priorities and, over the last two decades in particular, a number of centres of animal welfare research excellence have been established in Europe, North America, New Zealand and Australia.

The OIE and the ____________ Veterinary Services recognise the important contribution which animal welfare research makes to policy formulation and the development of science-based animal welfare guidelines and standards.

The purpose of this letter is, thus, to seek the support in principle of your organisation for funding animal welfare research relevant to our national needs. This will facilitate the
development of robust policy and scientifically sound and validated guidelines, standards and recommendations.

If you would like to receive more information on centres of animal welfare research excellence, either within our region or internationally, I would be glad to provide the appropriate contact details.

Additional information on the animal welfare mandate of the OIE may also be found on the OIE website at www.oie.int.

Yours sincerely
10. List of organisations representing various stakeholders involved in the OIE animal welfare initiative
With cooperation agreement

Veterinary

World Veterinary Association (WVA)
http://www.worldvet.org

The WVA has a range of international members with more than 80 national veterinary organizations representing an estimated 500,000 veterinarians (including British, American, Canadian Veterinary Associations, etc.). It is actively engaged in meeting its societal obligation to assist in food security and food safety. Furthermore, the fields of food (bio) safety, animal health, animal welfare and the responsible and sustainable use of our natural resources receive particular attention within the WVA.

Industry

1. International Meat Secretariat (IMS)
http://www.meat-ims.org; http://www.internationalwelfare.org
Paris, France

The IMS brings together over 80 meat and livestock organisations throughout the world, in a single non-profit making association. It provides a forum for the exchange of ideas and experiences on the issues affecting the international meat and livestock sector, including the humane treatment of farm animals. The International Meat Secretariat favours an ongoing dialogue with legislators, international organisations, animal welfare and consumer groups to promote the well-being of the animal within the context of an economically viable meat industry.

2. International Dairy Federation (IDF)
http://www.fil-idf.org
Brussels, Belgium

The IDF is an international organisation with 49 member countries worldwide, representing 74% of world milk production. It was created by the dairy sector worldwide for dairy specialists of all kinds to meet to resolve common issues and exchange ideas and experience. The work of the IDF is strategically focused on providing science-based information on which Governments and legislators can develop policy and regulations.

3. International Federation of Agricultural Producers (IFAP)
http://www.ifap.org
Paris, France

The IFAP is the world farmers organisation representing 110 national organisations in 75 countries. It is a global network in which farmers from industrialised and developing countries exchange concerns and set common priorities.

London, UK
http://www.internationalegg.com

The IEC is the Global Network for the egg industry with members in over 55 countries around the world. The IEC came into existence with goals to foster international co-operation among all sectors of the egg industry to their mutual benefit. Currently their aim includes encouraging improvement to the welfare of laying hens.
Without cooperation agreement

Veterinary

1. Commonwealth Veterinary Association (CVA)
http://www.commonwealthvetassoc.org

The Commonwealth Veterinary Association is one of the professional associations of the Commonwealth Foundation which has 53 member countries, represented by their National Associations having a combined strength of more than 100,000 veterinarians. The objectives of the CVA are to promote the veterinary profession within the Commonwealth by encouraging the highest professional standards of education, ethics and service in order to advance animal health, productivity and animal welfare to improve the quality of life of all its peoples.

2. World Small Animal Veterinary Association (WSAVA)
http://www.wsava.org

WSAVA is made up of veterinary organisations from all over the world, which are concerned with small companion animals such as cats, dogs, rabbits, guinea pigs etc. Currently there are 76 member and affiliate associations, representing over 70,000 individual veterinarians. Its primary purpose is to advance the quality and availability of small animal medicine and surgery, and this broad aim is achieved in a number of different ways. In addition, WSAVA encourages veterinarians to use their influence and knowledge to educate the community about animals and to increase community awareness of all issues affecting animal welfare. WSAVA is interested in sending a representative to the OIE Working Group on Animal Welfare.

Academia

International Society for Applied Ethology (ISAE)
http://www.applied-ethology.org

The main aims of the ISAE are to:
- encourage and support basic and applied research into the behaviour of animals as related to the use of animals by humans and to provide an international forum in which scientists can communicate and discuss the results of this research;
- encourage links between applied animal behaviour science and other disciplines;
- to encourage and support the teaching of animal behaviour in research and academic institutions, and
- to provide a pool of expertise to national governments, international bodies, industry and to those animal welfare organizations which deal with problems involving animal behaviour.

Animal Welfare Organisations

1. International Coalition for Farm Animal Welfare (ICFAW)

The ICFAW is a coalition of 5 international and 4 national animal welfare organisations and is dedicated to raising standards of animal welfare in livestock production systems, during transport and at slaughter, throughout the world. Its members are also concerned with the welfare of those animals used for scientific purposes, in exhibitions, for companionship and for sporting purposes. Although ICFAW does not have a cooperation agreement with the OIE, it is represented in the OIE Working Group on Animal Welfare.

   a) World Society for the Protection of Animals (WSPA)
   http://www.wspa-international.org
   London, UK
WSPA has member organisations from over 140 countries with 13 offices worldwide. The society is represented on numerous international bodies (including the OIE Working Group on Animal Welfare as part of ICFAW) and is the only animal welfare organization to have consultative status at the United Nations. A key area of WSPA's work has been the introduction of animal welfare principles into regions where they were previously under developed or non-existent, such as introducing procedures to ensure the humane slaughter of livestock in many developing countries and running numerous projects to improve the conditions of stray animal populations.

b) Humane Society International (HSI)
http://www.hsus.org/about_us/humane_society_international_hsi/
Washington DC, USA

As the international arm of The Humane Society of the United States (HSUS), HSI has offices in Australia, Canada, Latin America and Europe. HSI addresses issues such as inhumane practices and conditions affecting companion and farm animals, illegal trade in wildlife, threats to endangered species, slaughter of marine mammals, and the use of animals in research and testing. HSI works with national and jurisdictional governments, humane organizations, and individual animal protectionists to find practical, culturally sensitive, and long-term solutions to common animal problems. It is represented in the OIE Working Group on Animal Welfare as part of the ICFAW.

c) Royal Society for the Prevention of Cruelty to Animals (RSPCA) – UK
http://www.rspca.org.uk
Horsham, UK

More than 200 animal welfare organisations in 65 countries are associated to the RSPCA. The Society is involved in practical welfare, law enforcement as well as high-profile campaigning and education. It employs veterinary experts and consultants in the care and treatment of farm livestock, wildlife, domestic pets and animals used in research. It is represented in the OIE Working Group on Animal Welfare as part of the ICFAW.

d) Eurogroup for Animal Welfare
http://www.eurogroupanimalwelfare.org
Brussels, Belgium

*Eurogroup* represents animal 35 member and observer welfare organisations from all over the EU. *Eurogroup* works to reduce animal suffering throughout Europe by promoting animal welfare as a core element of sustainable development. *Eurogroup* strives to ensure that animal welfare is taken into account in all relevant EU policy areas and that European Laws designed to protect animals are adopted and enforced. By communicating the views of citizens and consumers to the European institutions, *Eurogroup* provides a channel for, and helps the EU to respond to, the concerns of civil society. It is represented in the OIE Working Group on Animal Welfare as part of the ICFAW.

e) International Fund for Animal Welfare (IFAW)
http://www.ifaw.org
Massachussets, USA

IFAW is one of the world's leading international animal welfare organizations, with more than 200 experienced campaigners, legal and political experts, and internationally acclaimed scientists working from offices in 13 countries around the world, including China and Russia. IFAW engages communities, government leaders, and like-minded organizations around the world and achieves lasting solutions to pressing animal welfare and conservation challenges-solutions that benefit both animals and people. It is represented in the OIE Working Group on Animal Welfare as part of the ICFAW.
f) **National Council for Prevention of Cruelty to Animals (NSPCA) – South Africa**  
http://www.nspca.co.za  
Alberton, RSA  
NSPCA is the umbrella body for 97 Societies situated throughout the Republic of South Africa. The NSPCA deals with national issues and has four operational units, namely, “Farm Animals”, “Society Liaison”, “Special Projects” and “Wildlife”, which work pro-actively to prevent cruelty. It is also involved in addressing national issues and problems including legislation (laws, regulations, by-laws, codes of practice), providing registered training courses, defining policy, assisting SPCAs and dealing with national disaster relief. It is represented in the OIE Working Group on Animal Welfare as part of the ICFAW.

g) **Japan Farm Animal Welfare Initiative (JFAWI)**  
http://www.jfawi.org  
Nippon Veterinary & Animal Science University, Tokyo, Japan  
A dedicated group of veterinarians and scientists.

h) **Royal Society for the Prevention of Cruelty to Animals (RSPCA) – Australia**  
http://www.rspca.org.au  
Canberra, Australia  
RSPCA Australia is the federal body of the eight autonomous state and territory RSPCAs in Australia. RSPCA Australia establishes national policies and positions on animal welfare and liaises with government and industry on national animal welfare issues. Some of the objectives of the RSPCA Australia include prevention of cruelty to animals by enforcement of existing laws, education, promoting awareness, operating and encouraging clinics and shelters. It is represented in the OIE Working Group on Animal Welfare as part of the ICFAW.

i) **Compassion in World Farming (CIWF)**  
http://www.ciwf.org.uk  
Petersfield, UK  
CIWF operates at an international level as the head of coalition of several animal welfare groups worldwide. Using respected political lobbying channels, evidence collected by undercover investigations unit and dynamic campaigning methods, the CIWF raises global awareness of the severe animal welfare problems inherent in modern factory farming and long distance transport systems. As part of the ICFAW, the CIWF is represented in the OIE Working Group on Animal Welfare.

2. **International Council for Laboratory Animal Science (ICLAS)**  
Barcelona, Spain  
The mission of the ICLAS is to act as a world-wide resource for laboratory animal science knowledge; to be the acknowledged advocate for the advancement of laboratory animal science in developing countries and regions; and to serve as a premier source of laboratory animal science guidelines and standards, and as general laboratory animal welfare information center. The OIE Working Group on Animal Welfare will have representatives at the upcoming meeting.

3. **World Association for Zoos and Aquariums (WAZA)**  
Berne, Switzerland  
The WAZA Network comprises about 1200 institutions spread all over the World. More than 200 zoos and aquaria are institutional members of WAZA. WAZA's mission is to guide, encourage and support the zoos, aquariums, and like-minded organisations of the world in animal care and welfare, environmental education and global conservation.
4. Universities Federation on Animal Welfare (UFAW)
http://www.ufaw.org.uk
Hertfordshire, UK

UFAW is a unique scientific and technical animal welfare organisation. We use scientific knowledge and established expertise to improve the welfare of animals kept as pets, in zoos, laboratories, and on farms and of wild animals with which we interact. UFAW funds research, holds symposia, gives advice to Government and others and produces publications on animal welfare.

5. Humane Slaughter Association (HSA)
http://www.hsa.org.uk
Herts, UK

The aim of the HSA is to improve conditions for animals and birds in abattoirs, markets and during transit. This is achieved by a rational, practical approach and by maintaining close relationships with all associated with the transport and slaughter of food animals. Abattoir work involves the demonstration of humane stunning methods, developing new equipment and advising on stunning and slaughter problems. Livestock markets are visited to monitor welfare conditions. The Association gives technical advice to government departments and industry, and sponsors necessary research projects.

Industry

1. Food Marketing Institute (FMI)
http://www.fmi.org
HQ Washington DC, USA

The FMI represents food retailers and wholesalers from 50 countries around the world. It develops and promotes policies, programs and forums supporting its members, and their customers, in the areas of: government relations, food safety and security, public and consumer information, research and education and industry cooperation. In addition, the FMI believes animal welfare issues, including animal husbandry practices and humane processing, are issues of importance to all of its members. Therefore, FMI's Board of Directors has adopted an industry policy and program components to be shared with our customers and our suppliers in the producer community.

2. International Poultry Council (IPC)
Copenhagen, Denmark
No website available

International Poultry Council (IPC) -- a global poultry association -- has been formed to fight bird flu worldwide and help poultry industries cooperate with each other to resolve issues that affect them all. IPC Members include Argentina, Brazil, China, European Union, Mexico, Russia, Thailand and the United States. The list of the IPC objectives include provisions to encourage uniform and science-based international sanitary and marketing standards for poultry and to strengthen ties to international animal disease and food safety organisations. The IPC is currently seeking to sign a cooperation agreement with the OIE.

3. Association of Poultry Processors and Poultry Trade in the EU countries (AVEC)
Copenhagen, DK
http://www.avec.dk

AVEC is a voluntary, non-profit association created in 1966 with a view to establish a unit to represent and promote the interests of the European poultry sector. AVEC represents the European poultry meat industry by seeking to find solutions to common issues. In order to complete this mission, AVEC has to follow the development in international trade and market conditions and of course keep a close
contact with the member organisations. In order to have a saying in the elaboration of legislation, which may have consequences for the industry, AVEC has done its utmost to build up a strong co-operation with the various services of the European Commission and AVEC finds this contact very rewarding and useful.

4. Committee of Agricultural Organisations (COPA)
http://www.copa-cogeca.be/
Brussels, Belgium

When COPA first started out it was made up of 13 member organisations from the then six Member States. Today COPA is made up of 53 organisations from the 25 countries of the European Union, 5 associated organisations from Bulgaria and Romania and 7 partner organisations from Iceland, Norway, Switzerland and Turkey. This broad membership allows COPA to represent both the general and specific interests of farmers in the Member States and, since its inception, it has been recognised by the Community authorities as the spokesman for the agricultural sector as a whole.

Transport

1. Animal Transportation Association (AATA)
http://www.aata-animaltransport.org

AATA is a non-profit association dedicated to the safe and humane transportation of animals worldwide, with offices in both Europe and North America. AATA provides an important opportunity for people involved in any phase of animal transportation to become part of an international effort to find solutions to a variety of problems related to the transport of animals. At the same time, members are linked to information, resources, contacts and key developments in the field that can help them provide better services and conditions for animals in transit. AATA provides a means for making research needs known, encouraging research, and disseminating findings. The organization further encourages uniform and effective international regulations and humane handling of live animals.

2. International Air Transportation Association (IATA)
http://www.iata.org
Montreal, Canada

IATA seeks to improve understanding of the industry among decision makers and increase awareness of the benefits that aviation brings to national and global economies. It fights for the interests of airlines across the globe, challenging unreasonable rules and charges, holding regulators and governments to account, and striving for sensible regulation. IATA ensures that people and goods can move around the global airline network as easily as if they were on a single airline in a single country. In addition, it provides essential professional support to all industry stakeholders with a wide range of products and expert services, such as publications, training and consulting.