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*International standards:
a mission at the core
of the OIE's mandate*

Oie

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Developing international standards in the field of animal health and welfare: a mission at the core of the OIE's mandate



© OIE / Isabelle Zezima

Throughout history, movements of animals and animal products, whether for trade purposes or when livestock are moved during transhumance, have always been a source of disease spread. At a time when rinderpest was spreading around the world like wildfire along trading routes, the OIE's founding countries decided to join forces to establish international sanitary rules that, when correctly applied, would minimise risks to public or animal health from trade in animals and products of animal origin. Coupled with a requirement for Member Countries to notify sanitary events observed on their territory, this mandate given to the OIE continues to be a major pillar of the Organisation.

In 1995, this mission acquired new legal force when OIE standards were formally recognised in the World Trade Organization's Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement) as the reference in the field of animal health, thereby significantly increasing the OIE's responsibility. Given that trade disputes arising from the application of arbitrary or unjustified sanitary barriers can have far-reaching socio-

economic consequences in a global market, confidence in the quality of the OIE's intergovernmental standards is of the utmost importance and the Organisation's credibility is a value that must be protected by complying with the intangible principles of scientific excellence, procedural rigour and transparency.

For this reason, the OIE, within the framework of the Basic Texts currently in force, is embarking on a programme to modernise its work methods and procedures in the following main areas.

THE SELECTION OF EXPERTS, first and foremost.

In accordance with the OIE's *Basic Texts*, standards are developed by independent experts selected for their scientific competencies and taking into account a balanced geographical representation. Experts who are members of one of the four Specialist Commissions¹ are elected by the World Assembly of Delegates meeting in General Session. As is the case with the other major international organisations and leading scientific bodies, it is incumbent on the OIE

1. Terrestrial Animal Health Standards Commission, Aquatic Animal Health Standards Commission, Scientific Commission for Animal Diseases, Biological Standards Commission

to have a written procedure that explicitly describes each of the stages, from the call for candidatures to the preselection of candidates, prior to their candidatures being submitted to a vote of the Assembly. A proposal to this effect will be tabled at the General Session in May 2017 with a view to preparing the next elections, to be held in May 2018.

HARMONISED, TRANSPARENT WORK PROCEDURES FOR THE FOUR SPECIALIST COMMISSIONS will also be established.

These procedures will also serve as a reference for the functioning of the Working Groups and ad hoc Groups. Thus, the existing arrangements for dealing with the comments received from Delegates and for monitoring declarations of confidentiality and any conflicts of interest will be reviewed, along with the rules governing the drafting of meeting reports. Clearly, even though a consensus prevails when the conclusions of the Groups and Commissions are adopted, an overview of the discussions, any areas of scientific uncertainty and the way minority views have been taken into account are all useful sources of information that should be brought

to the attention of Delegates and other stakeholders invited to comment on the draft standards prior to their adoption.

LASTLY, PROFESSIONALISED TRAINING FOR THE SECRETARIATS will be instituted.

In addition to their logistical and administrative role, the secretariats for the Commissions and Groups of experts must also be capable of providing scientific support and playing a greater part in the preparation of dossiers prior to their submission to the experts for examination. This is particularly the case with the processing of applications for recognition of official disease status, where each dossier requires lengthy analysis. The increasingly heavy agendas for the meetings of the Commissions, Working Groups and *ad hoc* Groups have become difficult to manage and alternative working methods must now be envisaged.

Strengthening the secretariats by making them into fully-fledged scientific secretariats is an option that will be deployed by setting up a suitably adapted training programme for the OIE staff members involved. The distribution of tasks will be determined in consultation with the Presidents of the Commissions and Groups, to ensure that the expertise meets the criteria of independence and neutrality.

While the development of sanitary standards is a key mission of the OIE, the Organisation cannot disregard the conditions under which they are applied by the Veterinary Services of Member Countries. The lessons learned from the findings of panels convened in recent years are highly informative as to the consequences of incorrectly interpreting or inappropriately applying OIE standards ².

For almost ten years, with the aim of improving sanitary governance, the OIE has been offering its Member Countries a programme designed to help them improve and strengthen their efficiency by bringing their national Veterinary Services into line with standards of quality³. Nearly 130 countries have already embarked on this programme, known as the 'PVS Pathway'⁴. The tool used evaluates 47 critical competencies, one being the level of Veterinary Services' involvement in commenting on OIE draft standards prior to their being submitted for approval to the World Assembly of Delegates.

Improving the level of Member Countries' contribution when they are consulted on draft standards implies improving their understanding of the standards and the underlying concepts. This should also help to ensure that standards are correctly applied so that trade is regulated in a

manner proportionate to the sanitary risks involved.

The OIE is therefore currently developing a special programme of training and information for Delegates and their staff in charge of regulating international trade: this will include organising practical workshops, developing communication tools, preparing documentation and drafting articles. This programme will significantly complement previous actions in this field, such as the information notes available on the OIE website^{5,6}.



On the strength of its history and the outcomes of actions undertaken in recent years, the World Organisation for Animal Health (OIE) has gained undisputed recognition on the international scene. I take very great pride in these achievements and it is now my responsibility to implement the changes that will safeguard the image of the OIE. This is the aim of the proposals that will be formally presented to the Assembly at the 84th General Session in May 2016.

Monique Éloit
Director General

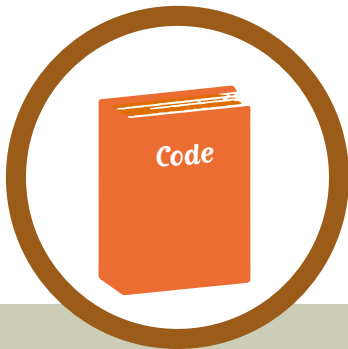
2. See article by Dr Sarah Kahn (pp. 82–93)
3. See *Terrestrial Animal Health Code*, Section 3. Quality of Veterinary Services
4. OIE PVS Pathway: www.oie.int/en/support-to-oie-members/pvs-pathway/

5. www.oie.int/en/international-standard-setting/overview/facilitating-safe-trade/
6. www.oie.int/en/international-standard-setting/overview/legal-rights-and-obligations/

How can Member Countries give more and get more out of the OIE

The trade disruptions and problems experienced by Member Countries, particularly developing countries, continue to be of concern for the OIE. They are a clear indication that, in spite of a democratic process of universally adopted OIE international standards, many Members are failing to implement or comply with these standards in their trade practices.

Nevertheless, the OIE continues to increase its capacity-building activities and to expand the range of its assistance, including numerous programmes and services designed to help Member Countries to implement and comply with OIE standards when engaging in international trade.



Standard-setting

The OIE's Specialist Commissions and Regional Representations regularly commit time to, and participate in, sessions to raise Delegate's awareness of when and how to participate effectively in the standard-setting process. They also encourage dialogue between Delegates and promote closer regional collaboration among them by sharing their individual national positions on standards being developed or reviewed. A number of regions have provided for webcam discussions, via WebEx, in advance of Commission meetings and the General Session, to provide Delegates with more information about individual countries' concerns and recommendations. However, these efforts have not led to a significant increase in the number of Members participating in the commenting process, nor have they increased the number of individual comments being submitted.



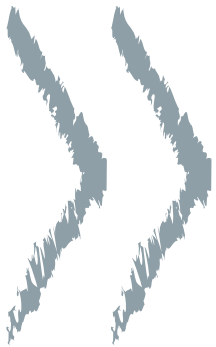
Disease notification

The OIE has made extensive improvements to the World Animal Health Information System (WAHIS). It also continues to assist Members in meeting their obligation to notify animal disease occurrences. OIE staff conduct regular training sessions, at regional level, for designated national focal points for disease information. This has certainly significantly improved the quality of and responsiveness to notifications of disease outbreaks. These focal point workshops also help Member Countries to apply the health status information published in WAHIS when developing trade policy or negotiating trade agreements.



Strengthening Veterinary Services

An effective and credible Veterinary Service is one of the most critical elements for fair and safe international trade in animals and animal products. Without a strong Veterinary Service and a robust international certification programme, Members will continue to experience trade restrictions. The OIE therefore places great emphasis on building the capacity and quality of Veterinary Services.



In response to the highly pathogenic avian influenza (subtype H5N1) crisis of 2005, the OIE invested heavily in developing a tool for evaluating the performance of Veterinary Services: the OIE-PVS evaluation. This tool assesses Member's ability to comply with standards in the OIE *Terrestrial Animal*

Health Code on the quality of Veterinary Services. The PVS evaluation was initially intended to determine the overall ability of Veterinary Services to detect and respond to pandemic threats. As this was strictly a diagnostic approach confined to a situation assessment, the OIE was quick to develop a set of additional instruments that are now part of the broader PVS Pathway. The Gap Analysis helps Members to identify their specific needs and formulate plans for improving critical competencies in line with their own national priorities.

The benefits of the PVS Pathway have proved to be even more far-reaching. The PVS evaluation, followed by a Gap Analysis and a series of targeted follow-up missions, has provided direct support to over 120 Members to make necessary improvements to their Veterinary Services. The evaluation report has also served as an unbiased expert evaluation of the quality of Veterinary Services, which enhances the credibility of

Veterinary Services and supports their international trade negotiations.

Some Members have also requested OIE assistance in mediating trade disputes. The OIE does so in cases where both parties have requested this confidential expert assistance, with the aim of finding a technical solution to the impasse, rather than its alternative: a legal determination of non-compliance by the World Trade Organization (WTO).



While the OIE continues to commit its experts and resources to assisting Delegates, there is a real need for Delegates to examine how to maximise these OIE efforts to significantly improve their trade relationships.

It is a fact that the role of the Chief Veterinary Officer (CVO) has changed, with a host of new demands and responsibilities placed on CVOs at national level. In many cases, this has led to the Delegate disengaging from individual OIE services, with responsibility being delegated to more technical or junior staff. Delegates' personal commitment and leadership is crucial to their country's participation in the OIE and cannot be underestimated.

One of the areas requiring personal attention from Delegates is a perceived lack of coordination, or harmonisation, between national trade policy and a country's technical participation in OIE standard-setting. In some cases, there is a clear lack of consistency between justification for



PVS Pathway

DIAGNOSIS

PRESCRIPTION

TREATMENT
TWINNING PROGRAMMES ASSISTANCE TOOLS

FOLLOW-UP



Initial PVS Evaluation



PVS Gap Analysis



Laboratories



Veterinary Education Establishments



Veterinary Statutory Bodies



Veterinary Legislation Support Programme



PVS Laboratory Tool



PVS Pathway Follow-up Mission

sanitary measures applied to imports and those applied domestically. The legislative process, often conducted with little or no involvement from Veterinary Authorities, does not always consider the commitments made in the OIE standard-setting process.

Trade relationships could also be improved by building closer relations between Delegates and Veterinary Authorities at regional level.



A stronger partnership between Veterinary Authorities and representatives of relevant private-sector stakeholders would definitely help in preparing stronger international trade negotiation positions. It would also improve stakeholder understanding of the role and benefits of ensuring the Delegate's continuous national participation in the OIE.

In many cases, strong positions adopted by private-sector stakeholders at international meetings reflect misconceptions about OIE standards and WTO sanitary and phytosanitary obligations.

In conclusion, to maximise the impact of OIE recommendations and interventions, Delegates will need to become more involved and provide leadership on OIE activities.

doi:10.20506/bull.2016.2.2513

Veterinary Services implement the WTO collaboration with national Customs



The OIE welcomes and fully supports the implementation of the new Trade Facilitation Agreement (TFA) of the World Trade Organization (WTO), adopted by the WTO General Council in November 2014. This new agreement contains provisions for expediting the movement, release and clearance of goods, including goods in transit. It also sets out measures

for effective cooperation between Customs and other appropriate authorities over trade facilitation and Customs compliance issues, and contains provisions for technical assistance and capacity-building in this area. Over 70 countries have now ratified the agreement, and 108 countries are required to ratify it before it can enter into force. The latest estimate for the timing of its

entry into force is the end of 2016 or early 2017.

The TFA constitutes an important milestone and has significant potential to improve global trade. The measures included in this agreement are expected to boost prosperity by reducing administrative burdens and transaction costs, and are predicted to save developing countries around USD 325 billion a year, and accelerate their integration into global value chains. According to the Organisation for Economic Co-operation and Development, developed countries also stand to gain from a 10% cut in their trade costs, and easier trade flows.

However, we must ensure that ‘trade facilitation does not become disease facilitation’ and that the provisions of the OIE international standards remain the basis for import and export of live animals, animal products and

The following list of matters of common interest is taken directly from the revised agreement:

- Good governance practices at borders, related to the human, physical and financial capacity of Customs Administrations and Veterinary Services (including transparency and integrity);
- The fight against smuggling and fraud in the trade in live animals, products of animal origin and veterinary medicinal products (including the prevention of environmental crimes; the preservation of biodiversity; protection against the entry of invasive alien species; and control of medicinal products in e-commerce);
- Biological threat reduction (bioterrorism and inappropriate use of animal disease and zoonosis pathogens);
- Animal welfare aspects during transport (by land, sea and air) and quarantine;
- The facilitation of international competition horse movements (in particular for a specific high-health, high-performance horse sub-population);
- The facilitation of cross-border movements in natural disasters.

Trade Facilitation Agreement in Administrations

biological material. While this is clearly stated in Article 10 of the TFA, this should also be clearly voiced in appropriate arenas at global, regional and national levels.

OIE Member Countries are encouraged to **actively participate in their National Committee on Trade Facilitation**, as provided for in Section III, Article 23.2, of the TFA. These national committees are designed to facilitate domestic coordination and implementation of the TFA provisions. Ensuring that representatives of Veterinary Services regularly participate in National TFA Committees will do much to ensure the proper implementation of the TFA from the Veterinary Services perspective.

Article 8 of the TFA on Border Agency Cooperation specifically addresses the expectation that all national border authorities

and agencies will cooperate with each other to coordinate border control and procedures to facilitate trade. Such cooperation and coordination may include the alignment of working days and hours, and of procedures and formalities; the development and sharing of common facilities; joint controls; and the establishment of one-stop border control (a single trade window). All of these steps will also contribute to improving the coordination capacity of the Veterinary Services concerned, border security, the international harmonisation of national veterinary legislation, and the implementation of several important provisions of Section III of the *Terrestrial Animal Health Code* on the quality of Veterinary Services.

At the global level, the OIE and World Customs Organization (WCO) revised their Cooperation

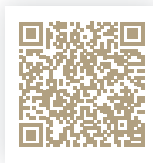
Agreement in 2015 to facilitate implementation of the TFA by strengthening cooperation between the two organisations, and boosting collaboration between national Customs Administrations and Veterinary Services around the world.

Text of the revised OIE and WCO Cooperation Agreement:
www.oie.int/en/about-us/key-texts/cooperation-agreements/agreement-with-the-world-customs-organization/

The capacity-building activities that will be part of the implementation of the TFA provide an excellent opportunity to strengthen relations between Veterinary Services and Customs Authorities. Recognising this opportunity, a proposal for a joint pilot OIE/WCO seminar on border security for national Customs Administrations and Veterinary Services is currently being developed by the OIE and WCO secretariats, for consideration by both organisations.

Given the attention that implementation of the TFA will bring to performance comparisons of Border Agencies, this opportunity to improve SPS border management performance in the context of coordinated border management through single trade windows is an important one to grasp.

new OIE publications



Trilingual publication
August 2016

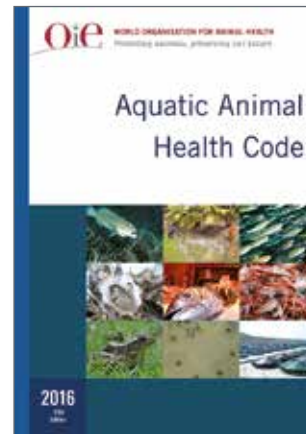
29.7 x 21 cm
Approx. 300 pages
ISBN 978-92-9044-997-3
Price: EUR 70
<http://dx.doi.org/10.20506/rst.issue.35.2.2521>

The future of pastoralism *Scientific and Technical Review*, Vol. 35 (2)

*Coordinators and editors: J. Zinsstag,
E. Schelling & B. Bonfoh*

This issue of the *Scientific and Technical Review* discusses human and animal health services and the added value of improved collaboration between the two under a 'One Health' approach. It provides a vision for the sustainable use of pastoral ecosystems, providing innovative ideas for livelihoods, economic development, sustained ecosystem services, animal health management and social and institutional development.

Two-thirds of the world's agricultural land is grassland. Most of the semi-arid and high-altitude ecosystems are not suitable for growing crops, either because these areas have limited rainfall or because the terrain is mountainous, so they are predominantly used for various types of mobile livestock husbandry systems. Such systems are the only way that these grasslands can become a source of human nutrition, as humans cannot digest grass cellulose. Extensive pastoral livestock production is, therefore, the most productive use of these lands. Moreover, in addition to providing food for both humans and animals, pastoral livestock production absorbs carbon and sustains livelihoods that could not be maintained in any other way in these areas.



**Published in English,
French and Spanish**
19th edition, 2016

29.7 x 21 cm
306 pages
ISBN 978-92-95108-12-7
Price: EUR 45

Aquatic Animal Health Code

The aim of the OIE *Aquatic Animal Health Code* (*Aquatic Code*) is to contribute to the improvement of the health of aquatic animals and welfare of farmed fish worldwide and to assure the sanitary safety of international trade in aquatic animals (amphibians, crustaceans, fish and molluscs) and their products.

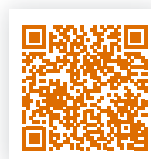
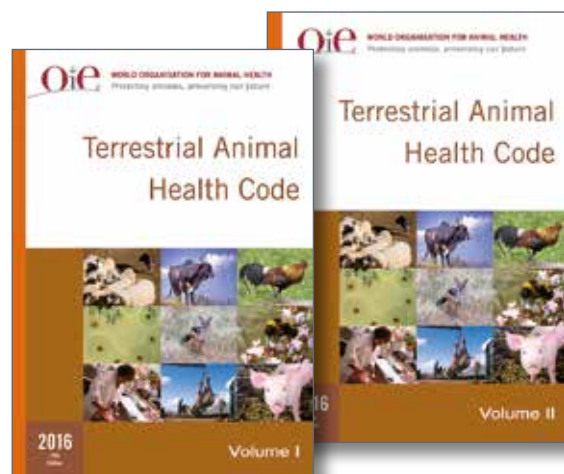
The standards in the *Aquatic Code* are based on the most recent scientific and technical information and have been formally adopted by the World Assembly of OIE Delegates. They are also recognised as the international standard for aquatic animal health within the World Trade Organization Agreement on the Application of Sanitary and Phytosanitary Measures.

The *Aquatic Code* should be used by the Competent Authorities of importing and exporting countries for early detection, reporting and control of agents pathogenic to aquatic animals, and to prevent their transfer via international trade in aquatic animals and their products, while avoiding unjustified sanitary barriers to trade.

It includes updates of the table of contents and glossary, and revised text included in Chapter 1.1., Notification of diseases and provision of epidemiological information, and Chapter 5.1., General obligations related to certification. Chapter 4.3., Disinfection of aquaculture establishments and equipment, has been extensively revised and the title amended accordingly. Chapter 9.2.,

Infection with yellow head virus genotype 1, has been amended to clarify the scope of this chapter and the title revised accordingly. In addition, some minor consequential amendments have been made

in Articles 1.4.3., 1.5.2., 2.1.4., 4.2.3. and 4.6.3. to ensure that the use of 'vector' is consistent with the new definition of 'vector'.



Published in English, French and Spanish
25th edition, 2016

29.7 × 21 cm
Vol. I: 432 pages
Vol. II: 308 pages
ISBN 978-92-95108-00-4
Price: EUR 60

Terrestrial Animal Health Code

The aim of the OIE *Terrestrial Animal Health Code* (*Terrestrial Code*) is to contribute to the improvement of terrestrial animal health and welfare and veterinary public health worldwide and to assure the sanitary safety of international trade in terrestrial animals (mammals, reptiles, birds and bees) and their products.

The standards in the *Terrestrial Code* are based on the most recent scientific and technical information and have been formally adopted by the World Assembly of OIE Delegates. They are also recognised as the international standard for animal health and zoonotic diseases within the World Trade Organization Agreement on the Application of Sanitary and Phytosanitary Measures.

The *Terrestrial Code* should be used by the Competent Authorities of importing and exporting countries for early detection, reporting and control of agents pathogenic to terrestrial animals, and, in the case of zoonoses, for humans, and to prevent their transfer via international trade in terrestrial animals and their products, while avoiding unjustified sanitary barriers to trade.

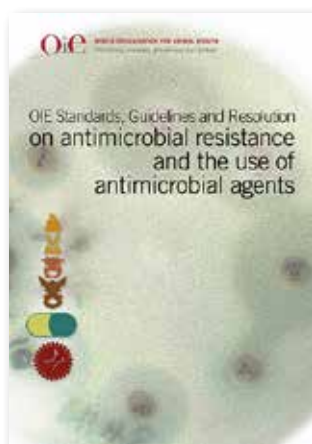
This 25th edition incorporates modifications to the *Terrestrial Code* agreed at the 84th General Session in May 2016. It includes an updated version of the table of contents, user's guide and glossary, as well as a new chapter covering the welfare of working equids (7.12.) (volume I).

Chapter 1.3. on prescribed and alternative diagnostic tests for OIE-listed diseases has been deleted from this edition.

Additionally, volume I includes revised text in the following chapters: notification of diseases, infections and infestations, and provision of epidemiological information; criteria for the inclusion of diseases, infections and infestations in the OIE list; diseases, infections and infestations listed by the OIE; evaluation of Veterinary Services; monitoring of the quantities and usage patterns of antimicrobial agents used in food-producing animals; slaughter of animals, killing of animals for disease control purposes; animal welfare and broiler chicken production systems; and animal welfare and dairy cattle production systems.

The following chapters in volume II were also updated: infection with bluetongue virus; infection with epizootic hemorrhagic disease virus; infection with Rift Valley fever virus; infection with *Trichinella* spp.; infection with peste des petits ruminants virus; and infection with *Taenia solium* (porcine cysticercosis).





In English
2015
29.7 × 21 cm
128 pages
ISBN 978-92-95108-16-5
Price: EUR 30

OIE Standards, Guidelines and Resolution on antimicrobial resistance and the use of antimicrobial agents

This special publication has been prepared to support the Global Action Plan on Antimicrobial Resistance (GAP-AMR) that WHO is developing in collaboration with FAO and OIE. It compiles:

- a note of the OIE Director General on the risks associated with the use of antimicrobial agents in animals worldwide,
- the OIE standards and guidelines on antimicrobial resistance and the use of antimicrobial agents from the *Terrestrial and Aquatic Animal Health Codes* and the *Manual of Diagnostic Test and Vaccines for Terrestrial Animals*,
- the OIE List of antimicrobial agents of veterinary importance, and
- the Resolution No. 26 on 'Combating Antimicrobial Resistance and Promoting the Prudent Use of Antimicrobial Agents in Animals' adopted by the OIE World Assembly of Delegates during the 83rd General Session in 2015.

Order online: www.oie.int/boutique/index.php?lang=en



Specialist Commissions

Biological Standards Commission

OIE Headquarters, Paris, 2–5 February 2016

The Biological Standards Commission met at the OIE Headquarters under the chairmanship of its President, Dr Beverly Schmitt, and addressed, among others, the following issues:

1. *Manual of Diagnostic Tests and Vaccines for Terrestrial Animals (Terrestrial Manual)*

At the General Session in May this year, if the Assembly adopts definitions of an OIE Standard and of an OIE Guideline to distinguish between texts adopted by resolution of the Assembly and those endorsed without adoption by resolution, the guidelines in Part 3 of the *Terrestrial Manual* will be renamed as chapters and the title of Part 3 will be changed to General Recommendations. Also, if the Assembly adopts the Code Commission's proposal to delete *Terrestrial Animal Health Code (Terrestrial Code)* Chapter 1.3., 'Prescribed and alternative diagnostic tests for OIE-listed diseases', the corresponding table and all reference to prescribed tests for international trade will be removed from the *Terrestrial Manual*. The titles of disease chapters in the *Terrestrial Manual* should be maintained and the *Terrestrial Code* title should be added in brackets when relevant, e.g. Chapter 2.2.2., American foulbrood (infection of honey bees with *Paenibacillus larvae*).

The Commission approved 21 chapters for circulation to Member Countries for second-round comments and eventual proposal for adoption by the Assembly in May 2016.

2. OIE reference centres

The Commission agreed that clear criteria and procedures for the designation and de-listing of OIE Reference Laboratories were needed. The Commission suggested that new applications for OIE Reference

Activities of the OIE Specialist Commissions, Working Groups and *Ad hoc* Groups

January to March 2016

Laboratories should only be considered at its August/September meetings. Furthermore, the Commission set a deadline of 45 days before the scheduled August/September meeting to receive applications for OIE Reference Laboratories. The deadline would need to be strictly observed to allow a full evaluation of the applications by Commission Members before this meeting. Applications received after the deadline would be examined in the next August/September meeting of the Commission.

An analysis of the activities of the OIE reference centres for terrestrial animals was presented. The Commission welcomed the increasing number of OIE Reference Laboratories with internationally recognised quality management systems in place. With reference to the recommendation from the Third Global Conference of OIE reference centres, that: '*OIE reference centres achieve or maintain accreditation to the ISO 17025 or equivalent quality management system in their diagnostic laboratories*', the Commission noted that the deadline to have these systems in place is fast approaching (i.e. the end of December 2017). The Commission agreed that there is a need to develop a procedure outlining how to review and manage Reference Laboratories that do not meet this requirement by the deadline, and agreed to discuss this item further at its next meeting in September 2016, as part of discussions on the development of standard operating procedures for the designation and de-listing of OIE Reference Laboratories.

The Commission accepted three requests for designation as an OIE Reference Laboratory. After the Commission's meeting, the requests were endorsed by the OIE Council. They will be proposed for adoption by the Assembly through a formal Resolution at the General Session in May 2016.

As of February 2016, 28 twinning projects have been completed and 35 are under way. Five twinning proposals were presented to the Commission for technical review.

3. *Ad hoc* Groups

The Commission endorsed the report of the *Ad hoc* Group on Replacement International Standard Bovine Tuberculin, 24–26 November 2015, and the protocol for the evaluation and adoption of a replacement International Standard Bovine Tuberculin.

The Commission also endorsed the report of the *Ad hoc* Group on High-Throughput Sequencing and Bioinformatics and Computational Genomics (HTS–BCG), 7–9 December 2015. The Commission supports the project to create an OIE Platform for the collection and management of genomic sequences in animal health and recommends that the OIE take it forward.

To advance the project to establish a virtual OIE biobank, a questionnaire was sent to those OIE reference centres that had previously indicated that they have a biobank to collect information on their IT systems, and also to collect any data sheets that the Centres keep for their biological resources.

The Commission proposed that the Director General convene an *Ad hoc* Group to: identify which types of biological material, along with metadata and quality assurance requirements, should be included in the OIE biobank; review IT options; and define the steps that are needed to implement the biobank.

4. OFFLU (the Joint OIE/FAO Network of Expertise on Animal Influenza)

Routine OFFLU activities have continued, including participation in the WHO Vaccine Composition Meetings (VCM) process, and meetings of the Swine Influenza Technical Activity and Influenza in Wildlife Technical Activity Groups.

It was noted that although, through OFFLU, the animal health sector undertakes to report to WHO on zoonotic influenza viruses currently being transmitted in livestock populations, in fact the number of isolates and associated genetic sequences being reported to



the public health sector is quite small. The data being made available from the animal health sector in support of pandemic preparedness could be considered to inadequately represent relevant influenza infections in animals. OFFLU must continue to advocate greater sharing of these data and isolates to its Members, and request the formal assistance of the OFFLU parent organisations, the FAO and OIE, to support it in this matter.

Scientific Commission for Animal Diseases ('Scientific Commission')

OIE Headquarters, Paris, 8–12 February 2016

The Scientific Commission met at the OIE Headquarters under the chairmanship of its President Dr Gideon Brückner, and addressed the following issues:

1. Endorsement of the reports of the *Ad hoc* Groups convened on:
 - evaluation of the foot and mouth disease (FMD) status of Member Countries
 - evaluation of the contagious bovine pleuropneumonia (CBPP) status of Member Countries
 - evaluation of the classical swine fever (CSF) status of Member Countries
 - evaluation of the bovine spongiform encephalopathy (BSE) risk status of Member Countries
 - evaluation of the peste des petits ruminants (PPR) status of Member Countries
 - evaluation of the African horse sickness (AHS) status of Member Countries
 - drafting a new *Terrestrial Code* chapter on vaccination
 - updating the *Terrestrial Code* chapter on lumpy skin disease
 - antimicrobial resistance.
2. Endorsement of the report of the Wildlife Working Group.
3. Addressing comments from Member Countries on the new and amended chapters of the *Terrestrial Code*
 - glossary
 - infection with African swine fever (Chapter 15.1.)
 - infection with *Burkholderia mallei* (glanders) (Chapter 12.10.)
 - infection with *Mycobacterium tuberculosis* complex (Chapter 8.X.)
 - infection with foot and mouth disease virus (Chapter 8.8.)
 - infection with bluetongue virus (Chapter 8.3.).
4. Liaison with the Biological Standards Commission on issues raised during previous Scientific Commission meetings related to diagnostic strategies and the production of a new international standard for bovine tuberculin.
5. Follow-up on the application from a Collaborating Centre for Training Veterinary Officials and Diagnostics to include the Reference Laboratory on Control of Veterinary Medicinal Products in Sub-Saharan Africa.
6. *Review* of the OIE expert missions scheduled for 2016, including the decision criteria to conduct a mission with regard to the Member Country's disease status.
7. Prioritisation of the future work of the Scientific Commission, including the new planned *Ad hoc* Groups.

The Scientific Commission emphasised the value of the Handbook for the management of high health, high performance horses (HHP horses), including the Model HHP Veterinary Certificate, to guide Member Countries in the implementation of the HHP concept.

The Commission was updated on the outcome of the main conferences and meetings attended by Commission Members or OIE staff and also on the state of play of the Global Strategies for FMD and PPR.

The Commission was also briefed on recent activities of the FMD Reference Laboratories Network and other disease-specific activities, such as those related to the Middle East Respiratory Syndrome coronavirus (MERS-CoV) and rinderpest post-eradication.

Additionally, the Scientific Commission and the Terrestrial Animal Health Standards Commission





held a joint meeting, chaired by Dr Brian Evans, OIE Deputy Director General, to coordinate the working programmes of both Commissions and to discuss items of common interest.

Terrestrial Animal Health Standards Commission ('Code Commission')

OIE Headquarters, Paris, 8–19 February 2016

The Code Commission met from 8 to 19 February 2016, to review Member Countries' comments on the report of its September 2015 meeting, as well as the work of the *Ad hoc* Groups (Slaughter of Animals: Water Bath Stunning Method for Poultry; *Salmonella* in Pigs and Cattle; Vaccination) and the Animal Production Food Safety Working Group. The Code Commission also reviewed advice from other Specialist Commissions, liaising with them to discuss issues of mutual interest and to align their approaches to Member Countries' comments on proposed amendments to chapters in the *Terrestrial Animal Health Code* (the *Terrestrial Code*).

The Code Commission amended the following chapters and new draft chapters for the *Terrestrial Code*, which will be proposed for adoption at the 84th General Session in May 2016:

- user's guide
- glossary
- notification of diseases, infections and infestations, and provision of epidemiological information (Chapter 1.1.)
- criteria for the inclusion of diseases, infections and infestations in the OIE list (Chapter 1.2.)
- diseases listed by the OIE (draft Chapter 1.2bis.)
- prescribed and alternative diagnostic tests for OIE-listed diseases (deletion of Chapter 1.3.)
- evaluation of Veterinary Services (Article 3.2.14.)
- monitoring of the quantities and usage patterns of antimicrobial agents used in food-producing animals (Chapter 6.8.)
- infection with *Trichinella* spp. (Chapter 8.16.)
- infection with *Taenia solium* (Chapter 15.3.)
- slaughter of animals (Article 7.5.7., Point 2)
- killing of animals for disease control purposes (Articles 7.6.6. to 7.6.18.)
- animal welfare and broiler chicken production systems (Article 7.10.4.)
- animal welfare and dairy cattle production systems (Chapter 7.11.)
- welfare of working equids (draft Chapter 7.X.)
- infection with bluetongue virus (Chapter 8.3.)
- infection with epizootic haemorrhagic disease virus (Chapter 8.7.)
- infection with Rift Valley fever virus (Chapter 8.14.)
- infection with peste des petits ruminants virus (Article 14.7.21.).

The Code Commission also revised the following chapters and new draft chapters for the *Terrestrial Code*, which have been circulated for Member Country comments to be considered at its September 2016 meeting:

- glossary
- animal health surveillance (Chapter 1.4.)
- criteria for assessing the safety of commodities (draft Chapter 2.X.)
- zoning and compartmentalisation (Chapter 4.3.)
- OIE procedures relevant to the Agreement on the Application of Sanitary and Phytosanitary Measures of the World Trade Organization (Chapter 5.3.)
- prevention and control of *Salmonella* in commercial cattle production systems (draft Chapter 6.X.)
- prevention and control of *Salmonella* in pig production systems (draft Chapter 6.Y.)
- the role of Veterinary Services in food safety (Chapter 6.1.)
- slaughter of animals (Article 7.5.7., Point 3b.)
- infection with foot and mouth disease virus (new Article 8.8.4bis.)
- infection with *Mycobacterium tuberculosis* complex (draft Chapter 8.X.)
- infection with lumpy skin disease virus (Chapter 11.11.)
- infection with African swine fever virus (Chapter 15.1.)
- infection with porcine reproductive and respiratory syndrome virus (draft Chapter 15.X.).

The Code Commission also updated its work programme and circulated it for Member Countries' information and comments.



Aquatic Animal Health Standards Commission ('Aquatic Animals Commission')

OIE Headquarters, Paris, 15–19 February 2016

The Aquatic Animals Commission met from 15 to 19 February 2016 to review Member Countries' comments on the report of its October 2015 meeting. The Commission also reviewed the October 2015 report of the *Ad hoc* Group on Susceptibility of Crustacean Species to Infection with OIE-listed Diseases.

The Aquatic Animals Commission will propose the following revised *Aquatic Animal Health Code (Aquatic Code)* chapters for adoption at the 84th General Session in May 2016:

- glossary
- revisions to Articles 1.4.8., 1.5.2., 2.1.4., 4.2.3. and 4.6.3
- notification of diseases and provision of epidemiological information (Chapter 1.1.)
- general recommendations on disinfection (Chapter 4.3.)
- general obligations related to certification (Chapter 5.1.)
- infection with yellow head virus (Chapter 9.2.).

The revised *Aquatic Manual* chapter on 'Infection with yellow head virus genotype 1' (Chapter 2.2.8.) will also be proposed for adoption.

The Aquatic Animals Commission also circulated the following chapters from the *Aquatic Code* and the *Aquatic Manual* for Member Countries' comments.

a) In the *Aquatic Code*:

- glossary
- criteria for the inclusion of diseases in the OIE list (Chapter 1.2.)
- diseases listed by the OIE (Chapter 1.3.)
- acute hepatopancreatic necrosis disease (Chapter 9.X.)
- revised Article X.X.8. for all disease-specific chapters
- recommendations for disinfection of salmonid eggs (Chapter 4.4.)
- crayfish plague (*Aphanomyces astaci*) (Chapter 9.1.)
- infectious hypodermal and haematopoietic necrosis (Chapter 9.3.)
- infectious myonecrosis (Chapter 9.4.)
- necrotising hepatopancreatitis (Chapter 9.5.)
- Taura syndrome (Chapter 9.6.)
- white tail disease (Chapter 9.8.)

b) In the *Aquatic Manual*:

- acute hepatopancreatic necrosis disease (new draft Chapter 2.2.X.)
- crayfish plague (*Aphanomyces astaci*) (Chapter 2.2.1.)
- infectious hypodermal and haematopoietic necrosis (Chapter 2.2.2.)
- infectious myonecrosis (Chapter 2.2.3.)
- necrotising hepatopancreatitis (Chapter 2.2.4.)
- Taura syndrome (Chapter 2.2.5.)
- white tail disease (Chapter 2.2.7.).

The Aquatic Animals Commission also updated its 2016–2017 work programme and circulated it for Member Countries' information and comments.





Ad hoc Groups

Lumpy skin disease

OIE Headquarters, Paris, 12–14 January 2016

The Group was convened to update Chapter 11.11. on lumpy skin disease (LSD) of the *Terrestrial Code*. It was supported and guided in its task by representatives from the Scientific Commission and from the Code Commission.

The meeting began with an overall information session, open to participation by the OIE staff. The experts provided an update on the current global LSD situation and discussed existing gaps in the knowledge of the disease and current research efforts, with special consideration of the development of effective and safe Differentiating Infected from Vaccinated Animals (DIVA) vaccines.

The Group evaluated the role of wildlife in the epidemiology of the disease, which seems to be limited, and decided to consider only domestic susceptible animals when drafting the recommendations for safe trade. The Group also considered surveillance that should be conducted in a vaccinated population and concluded that LSD freedom could only be demonstrated in a non-vaccinated population. Specific articles on safe commodities and surveillance were also proposed in the amended chapter.

Finally, the Group made suggestions, with the Biological Standards Commission, to update Chapter 2.4.14. on LSD of the *Manual of Diagnostic Tests and Vaccines for Terrestrial Animals* and the OIE technical disease card.

Vaccination

OIE Headquarters, Paris, 17–19 January 2016

The Group was convened to draft a horizontal chapter on vaccination to be included in the *Terrestrial Code*. The Group was supported in this by representatives from the Scientific Commission, the Biological Standards Commission and the Code Commission.

The chapter is intended to provide guidance to Member Countries to help them successfully implement vaccination as part of their disease control

programmes. The general recommendations of this chapter may be refined, when relevant, by specific approaches described in the disease-specific chapters of the *Terrestrial Code*.

During the three-day meeting, the Group developed an outline of the chapter, provided appropriate definitions and identified the crucial components that should be covered by the draft chapter. However, this work could not be completed during the meeting. The Group expressed the need for another meeting to finalise the draft chapter, and the Director General agreed to reconvene the Group at the end of March 2016.

Evaluation of African horse sickness (AHS) status of Member Countries

OIE Headquarters, Paris, 19–20 January 2016

The Group evaluated three applications for AHS-free country status, in accordance with the *Terrestrial Code*. As part of the Scientific Commission's work plan to revise all questionnaires related to official recognition of disease status, the Group also proposed modifications to the AHS questionnaire in Chapter 1.6. (Article 1.6.8.) of the *Terrestrial Code*, to clarify information requested from applicant Member Countries.

Setting up a global database on the use of antimicrobial agents in animals

OIE Headquarters, Paris, 19–21 January 2016

The meeting was organised in two parts.

The first part was dedicated to: presenting the preliminary results of the 2015 data collected from OIE Member Countries on the use of antimicrobial agents in animals, discussing the denominator (three different approaches were proposed as the next step), and planning the proposed structure of the final presentation of 2015 data to OIE Member Countries, at the OIE General Session in May 2016.

The second part was dedicated to Chapter 6.7. of the *Terrestrial Code*: 'Harmonisation of national antimicrobial resistance surveillance and monitoring programmes'. The chapter was updated, mainly by defining the criteria for selecting animal pathogens for antimicrobial resistance surveillance. A table was also added, to give examples of target animal species and animal bacterial pathogens that may be included in resistance surveillance and monitoring programmes.



Animal welfare and pig production systems

*OIE Headquarters, Paris,
22–24 March 2016*

The Group met in March 2016 and has developed a new draft chapter for the *Terrestrial Code* on this subject. Its work was based on the terms of reference prepared by the Animal Welfare Working Group and the *Ad hoc* Group on Animal Welfare and Livestock Production Systems, which have been used to guide the development of all the adopted 'animal welfare in livestock production systems' chapters included in the *Terrestrial Code*. The new draft chapter includes outcome-based criteria or measurables, which reflect the complex interaction of multiple design inputs, to evaluate animal welfare.

This new draft chapter will be included on the agendas of the Animal Welfare Working Group and Code Commission meetings in June and September 2016, respectively.

news from headquarters

Staff movements

Arrival

Legal Affairs and Partnerships Unit

Maroussia Clavel

Head of the Performance Management Cell



The Legal Affairs and Partnerships Unit welcomes Dr Maroussia Clavel to the position of Head of the Performance Management Cell.

Maroussia will contribute to the definition, development and implementation of individual and organisational development strategies, and assist in managing change within the OIE. She will provide support to various teams, improving practice to aid in fulfilling the objectives of the OIE Strategic Plan. She

will also help to manage change linked to the development and implementation of improved work methods. She will help teams to develop a performance-based approach. In addition, she will design and implement performance management policies and practices. She will also work in close collaboration with the Human Resources Cell to develop Human Resources policies and procedures, promoting staff development and a culture of continuous improvement. Finally, she will liaise with auditors.

Maroussia began her position with the OIE on 1 February 2016, after a six-month internship working on performance analysis for the OIE *World Animal Health and Welfare Fund*.

She has a DVM from the *École Nationale Vétérinaire de Toulouse*, France, and a Master's Degree in Management and Business Administration from the University of Lyon.





Activities of the Scientific and Technical Department

Annual reconfirmations of official disease status and endorsed control programmes: a new on-line tool developed by the OIE

Official recognition of disease status and endorsement of official control programmes

In May 1994, the OIE Member Countries asked the OIE to develop a procedure for official recognition of foot and mouth disease- (FMD-) free countries and zones, to facilitate international trade. Since then, the procedure has been extended to include official recognition of the status of countries or zones with respect to rinderpest, contagious bovine pleuropneumonia (CBPP), African horse sickness (AHS), peste des petits ruminants (PPR), classical swine fever (CSF) and risk status for bovine spongiform encephalopathy (BSE). In 2011, a procedure for the endorsement of national official control programmes for FMD, CBPP and PPR was established to help Member Countries to progressively improve their animal health situation and eventually attain official recognition of disease-free status. After the global eradication of rinderpest was declared in 2011, the *Terrestrial Animal Health Code* was revised and official disease status of individual Member Countries was discontinued in 2012.

At the 83rd General Session in 2015, 101 Member Countries were recognised as having at least one official status (Fig. 1).

To maintain their officially recognised status, Member Countries are obliged to reconfirm that their official status has remained unchanged. This annual procedure for maintaining their status is in line with Resolution No. 15, adopted at the 83rd General Session, in accord with the requirements of the OIE *Terrestrial Animal Health Code*, and the spirit and purpose of official recognition of disease status: the recognition that specific countries and zones are free from a particular disease, enabling safe trade. Member Countries with endorsed official national control programmes for FMD, CBPP or PPR must also submit annual reconfirmations, to inform the OIE of their progress in implementing the control programme and the potential evolution of the epidemiological situation in their country. All annual reconfirmations are to be sent to the OIE during the month of November each year.

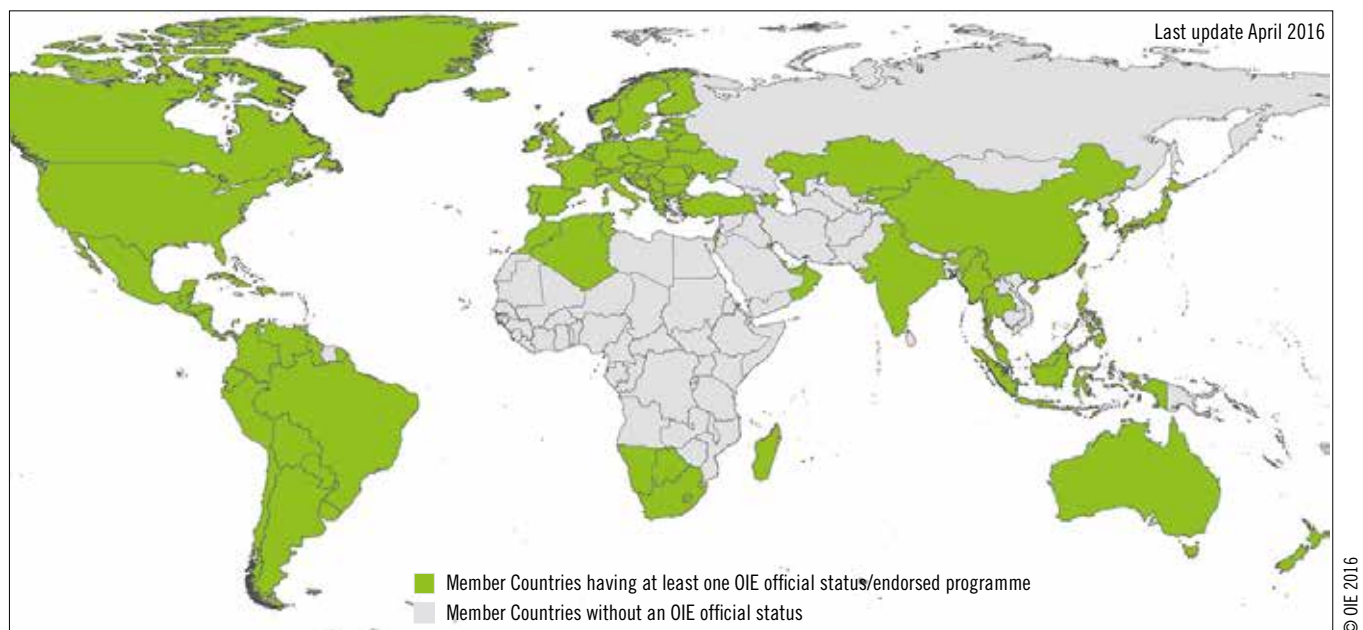


Fig. 1
OIE Member Countries that should reconfirm their official status and/or endorsed programme annually



Activities of the Scientific and Technical Department

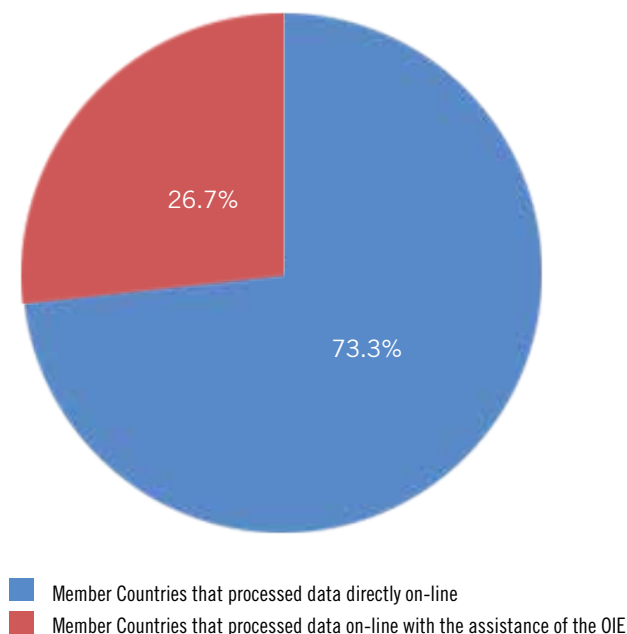


Fig. 2
Use of the on-line system by Member Countries for the 2015 annual reconfirmation (as of 18 May 2016)

A new on-line system for the annual reconfirmation of an official disease status or endorsed official control programme

To facilitate the annual reconfirmation procedure, in November 2015 the OIE launched an on-line annual reconfirmation system.

As of 18 May 2016, 73.3% of Member Countries have used the new on-line system directly to submit their annual reconfirmations, while 26.7% required technical support from the OIE to process the relevant information into the on-line system (Fig. 2). The on-line system seems to have been both useful and successfully adopted by Member Countries.

To monitor the impact of the on-line tool on Member Country compliance in submitting their annual reconfirmations, the OIE compared the submission dates of annual reconfirmations in 2014 (sent from October 2014 to May 2015, via e-mail, fax and letters) with those of 2015 (sent

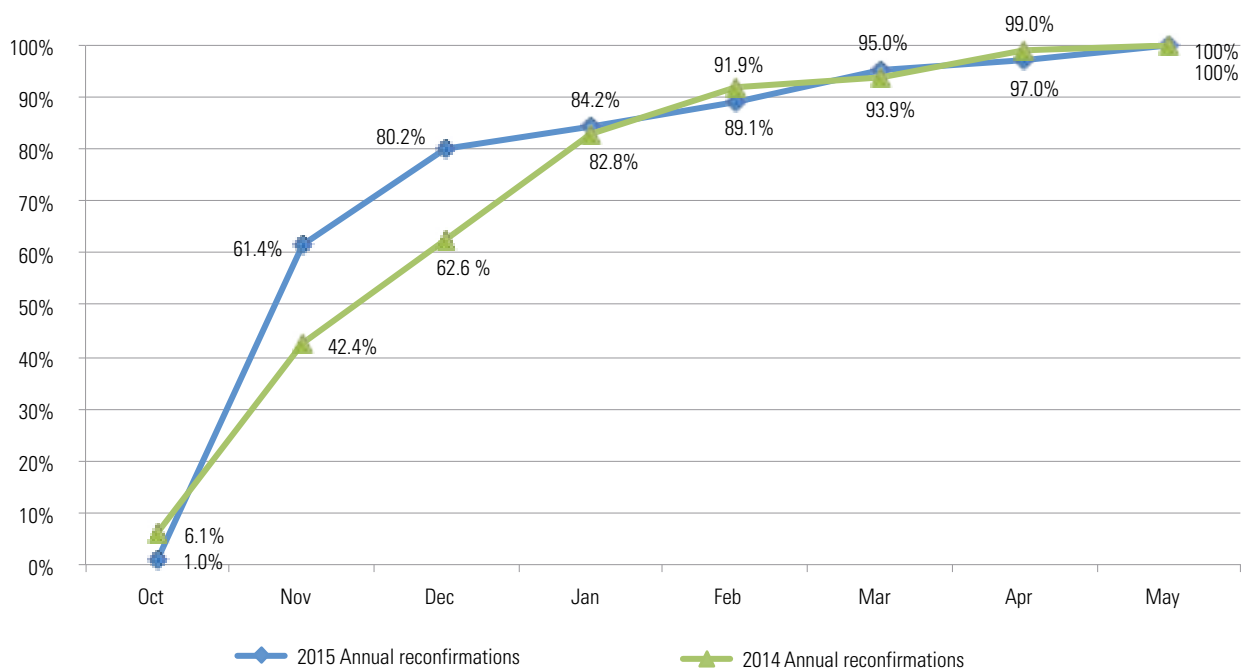


Fig. 3
Percentage of Member Country submissions for annual reconfirmations in 2014 and 2015 (received from October 2014 to May 2015 and from October 2015 to May 2016, respectively)



Activities of the Scientific and Technical Department

from October 2015 to March 2016 via the on-line system or e-mail, fax and letters) (Fig. 3).

The percentage of Member Country submissions in November 2015 increased by 20% when compared to November 2014; the same increase was also noted in December 2015 in comparison to December 2014.

The OIE sent a letter in October 2015 to all Delegates of Member Countries with an OIE official status or an endorsed national official control programme, describing the use of the on-line system, which undoubtedly served as a reminder of their obligation to submit annual reconfirmations in November. However, the analysis indicates a very positive result for the on-line system, in encouraging Member Countries to comply with their obligation of annual reconfirmation.

As 2015 was the first year of the on-line system, some Member Countries were still providing their annual reconfirmation in more traditional ways. While the paper formats of all annual reconfirmation forms will be kept available on the Delegates' website, as well as on the OIE website, the OIE thanks Member Countries that have used the on-line system during 2015 and encourages all Member Countries to use the new system for their annual reconfirmations in November 2016.

The OIE will continue to improve and strengthen its procedures and annual reconfirmation system for Member Countries with an official OIE status or endorsed national official control programme, to support Members' efforts and further facilitate the reconfirmation procedure.

Activities of the Communication Unit

The OIE launches a fact sheet on international standards



The OIE has published a fact sheet on its international standards. The aim of this communication tool is to widely publicise the intergovernmental standards, the development of which is the OIE's core business.

What is an OIE international standard? Where can one find the OIE's standards? Why are they developed? How and by whom? The new OIE fact sheet answers these and many other questions.

This new fact sheet, as well as the other ten OIE fact sheets, can be consulted on the OIE website. They are available in English, French and Spanish.

The eleven fact sheets available online:

- Animal welfare
- Antimicrobial resistance
- Aquatic animals
- Biological threat reduction
- Food safety
- Good veterinary governance
- International standards
- Official disease status
- Prevention and control
- Wildlife
- World information on animal diseases

Please feel free to use them and share them with your colleagues!

OIE fact sheets:
www.oie.int/en/for-the-media/key-documents/fact-sheets/



Activities of the Communication Unit


New tools to raise international community awareness of rabies control methods

Following the consensus reached at the global conference on rabies in Geneva in December 2015, the World Organisation for Animal Health (OIE) and World Health Organization (WHO) have published a global framework for the elimination of dog-mediated human rabies, in collaboration with the Food and Agriculture Organization of the United Nations (FAO) and with the support of the Global Alliance for Rabies Control (GARC).

Their aim is to harmonise global action against the disease and to provide countries and regions with flexible and practical guidelines for reducing to zero, by the year 2030, the number of human deaths caused by canine rabies in participating countries. The proposed measures for achieving this target include mass vaccination of dogs in risk areas. The OIE has developed new communication tools to raise international community awareness of this zero human deaths target.


‘The vaccinated dog is the soldier in the fight against rabies’

RABIES STILL KILLS




In 2/3 of the countries worldwide

TO ELIMINATE RABIES, WE NEED




Good quality dog vaccines

TO ELIMINATE RABIES, WE NEED




Mass dog vaccination campaigns in at-risk areas

TO ELIMINATE RABIES, WE NEED




Stray dog population control

TO ELIMINATE RABIES, WE NEED



Well-informed dog owners and populations

**NO MORE DEATHS FROM RABIES !
VACCINATE YOUR DOG !**



www.oie.int/rabies



Activities of the Communication Unit

As more than 95% of human rabies cases are caused by dog bites, the most cost-effective way of eliminating rabies is to prevent it at its animal source. Sustainable vaccination of 70% of the at-risk dog population is recognised as the key to eliminating the disease in endemic areas.

To this end, the action plan promotes responsible dog ownership and dog population management practices, including vaccination, in accordance with OIE intergovernmental standards. It also confirms the need to strengthen animal and public health systems so as to ensure sustainable, safe, effective and accessible dog and human vaccines and immunoglobulins, as well as to promote and implement mass dog vaccination, which is seen as the most cost-effective way of eliminating dog-mediated human rabies.

Every year, dog-mediated human rabies still kills tens of thousands of people across the world. Freedom from this scourge is a global public good and can be achieved using tools that are already available.

oie WORLD ORGANISATION FOR ANIMAL HEALTH
Protecting animals, preserving our future

CANINE RABIES VACCINES TO SAVE HUMAN LIVES

Rabies kills nearly 70,000 persons per year with more than 95% of cases originating from infected dog bites. By providing high-quality dog vaccines, the OIE Vaccine Bank helps countries implement vaccination campaigns and eliminate canine-mediated human rabies.

Donors
OIE World Fund
- Multi donor approach
- Regional embedding

Vaccine suppliers
High-quality vaccines
- Complying with OIE international standards
- Available upon request

OIE Member Countries
Direct purchase
- Developing countries
- International organisations (WHO, ...)
- Other partners

Rabies Vaccine Bank

Requests for vaccines

Vaccine delivery
- Timely dispatch
- Flexible quantities

International call for tender
Multi-supplier approach

Successful National Strategy to Eliminate Dog-Mediated Rabies

- Mass dog vaccination campaigns in at-risk areas
- Human vaccines and post-exposure treatments
- Stray dog population management
- Awareness raising

www.oie.int/rabies

This new infographic explains how OIE vaccine banks operate by providing high-quality dog vaccines fast. The vaccine banks have already contributed to several successful vaccination campaigns in African and Asian Member Countries.

New animated infographics targeting dog owners and national authorities are available on the rabies portal of the OIE website: www.oie.int/rabies



Activities of the Communication Unit

A quick guide to the OIE

Do you know the World Organisation for Animal Health?

A new leaflet providing an overview of the OIE's work and worldwide network is now available.

Designed for an audience that is unfamiliar with the organisation's activities, this six-page booklet explains the role of the OIE and the four key areas of its work: the OIE standards, transparency, expertise and international cooperation. Also included are key facts and figures about the OIE's regional presence and its global network of experts.



www.oie.int/leafletOIE

Everything you need to know about the OIE: the Organisation updates the A-Z

The OIE has posted the 2016 edition of its online A-Z. The documents, information and key data gathered together in this invaluable tool for national and international policymakers in the fields of animal health and welfare will enable them to understand the OIE better and become more familiar with the way the Organisation operates.

Indispensable for Delegates and Focal Points, the updated A-Z contains all the information they need to fulfil their responsibilities effectively. Users have several options for navigating through the tool.

The user-friendly format of the interactive tool makes it ideal for rapid reference. It can be accessed from the homepage of the OIE website.

The sections are as follows:

- **General overview** of the Organisation and the role of the representatives of its 180 Member Countries: in particular, tools to be used by OIE Delegates and Focal Points
- **Veterinary Services** and their role in animal health, public health and animal welfare
- **OIE standards** applicable to animal health, including zoonoses
- **WAHIS/WAHID**: the OIE's World Animal Health Information System
- **The official disease status of Member Countries** with respect to priority animal diseases
- **The OIE's global scientific network**, the heart of the Organisation, which puts it at the forefront of global veterinary scientific expertise and enables it to successfully carry out its role
- **OIE publications**: this section contains the normative texts, periodicals and proceedings of global conferences, with the aim of fostering public debate and supporting policy development worldwide.



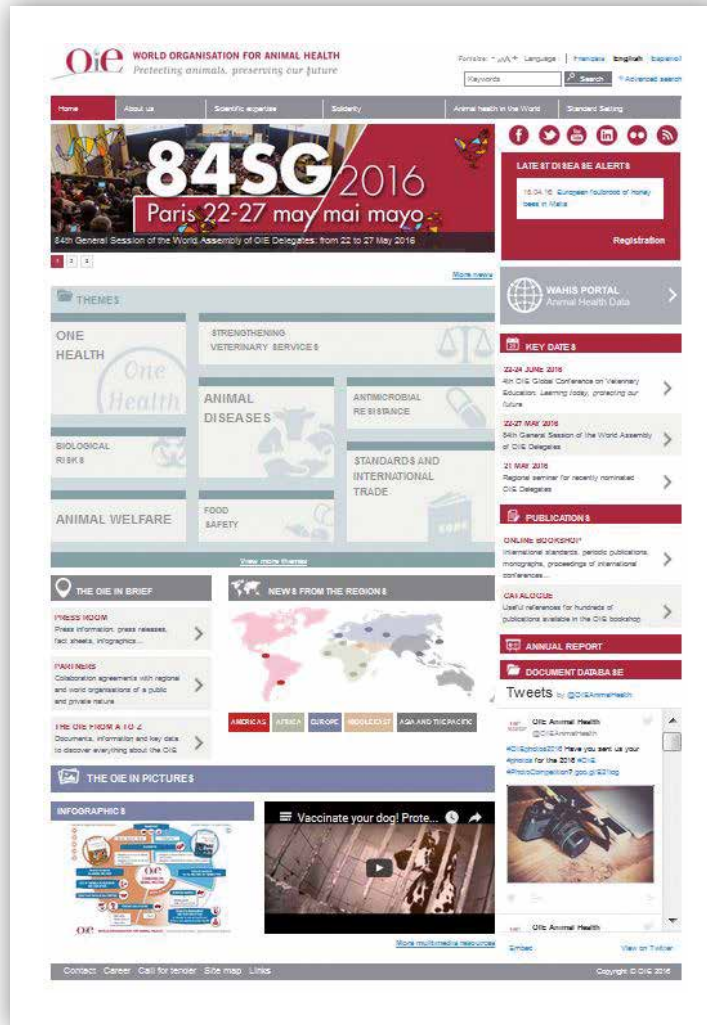
The OIE from A to Z: www.oie.int/fileadmin/vademecum/OIE_A-Z_2015.html





Activities of the Communication Unit

The OIE website gets a makeover



The OIE has redesigned its website for 2016. The new design makes browsing more fluid, more comfortable and more ergonomic.

Discover all the new features that make accessing information and key data on the OIE website much easier. As well as the new look, the content has also been revised and updated.

The homepage now contains links to information on the topics of key importance to the OIE: 'One Health', 'Biological risks', 'Animal welfare', 'Strengthening Veterinary Services', 'Animal diseases', 'Food safety',

'Antimicrobial resistance', and 'Standards and international trade'.

To ensure more responsive searches for information on global animal health, the OIE has made public access to its various computer tools much easier, by creating the WAHIS portal, a single interface for animal health data.

With the addition of the thread of messages posted on social networks, and 'share' buttons on the website for social networking, it is now easier to interact with the OIE and get the most up-to-date news on a single dedicated page.

Take a fresh look at the OIE website, at: www.oie.int





Activities of the Communication Unit

The OIE unveils its new ‘One Health’ web portal

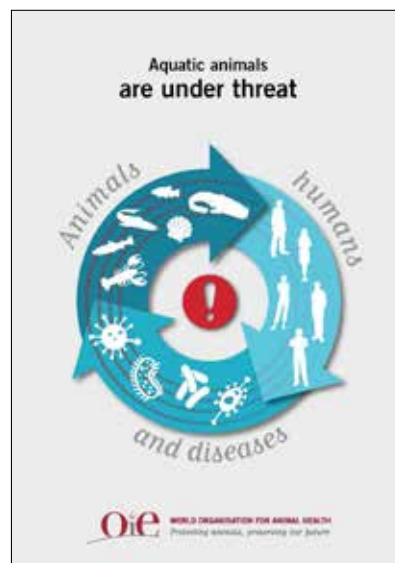
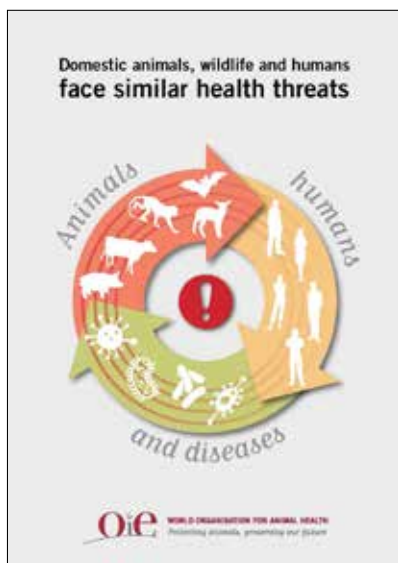
A wealth of information on the subject of ‘One Health’ can be found on the new platform, along with details of action taken at the global level by the OIE and its partners to promote cooperation between the human-health and animal-health sectors.

Animals, humans and diseases

Diseases of animal origin that can be transmitted to humans, such as avian influenza, rabies, Rift Valley fever and brucellosis, pose global threats to public health.

Other diseases, which are primarily transmitted from person to person also circulate in animals or have a known animal reservoir, and can cause serious health crises, as the recent Ebola epidemic demonstrated.

These risks are increasing with globalisation, climate change and changes in human behaviour, all of which create opportunities for pathogens to colonise new areas and develop new forms.



Origins of the ‘One Health’ concept

Introduced at the beginning of the millennium, ‘One Health’ is a concept that captures in two words the recognition that human health and animal health are interdependent and related to the ecosystems in which they coexist.

The OIE believes that the concept requires a collaborative, global approach to tackle the risks to human, animal and environmental health as a whole, and takes

action accordingly. It builds on its intergovernmental standards and the worldwide information on animal health that it gathers, as well as its network of international experts and programmes for strengthening national Veterinary Services. Moreover, the OIE works in collaboration with more than 70 other international organisations, in particular those that play a key role at the human–animal–environmental interface.





Activities of the Communication Unit

The new web portal brings together the tools developed by the OIE to control worldwide animal health risks more effectively, presenting the actions taken with its partner organisations – in particular, the WHO and the FAO, within the framework of the Tripartite Alliance – as well as the tools used by stakeholders on the ground to support the joint work of the human-health and animal-health services.

One page is dedicated to the OIE’s communication tools, which are aimed at a range of audiences and include fact sheets, explanatory tools, videos and press releases, as well as news about various events related to the ‘One Health’ theme.

One Health



One Health “at a glance” More effective control of global health risks
International collaboration Strengthening multi-sectoral collaboration at the national level Media resources

One Health “at a glance”

Protecting “One Health”

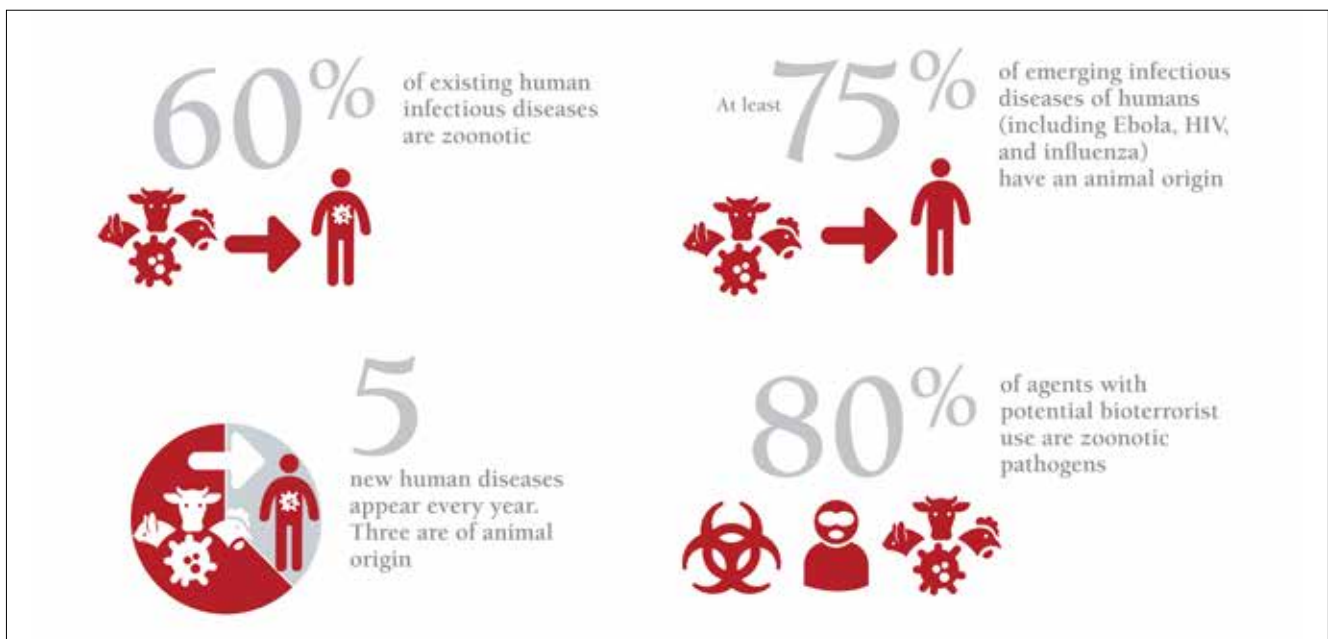
The “One Health” concept was introduced at the beginning of the 2000s. In a few words, it summarised an idea that had been known for more than a century; that **human health and animal health are interdependent and bound to the health of the ecosystems** in which they exist.

This concept is envisaged and implemented by the OIE as a collaborative global approach to understanding risks for human and animal health (including both domestic animals and wildlife) and ecosystem health as a whole. The OIE builds upon the intergovernmental standards which it publishes and the worldwide information on animal health that it collects as well as its network of international experts and programmes for strengthening national Veterinary Services. Moreover, it collaborates synergistically with more than 70 other international organisations, particularly those which play a key role in the human–animal–ecosystems interface.

- > Definitions
 - + Zoonosis
 - + Veterinary Services
- > Documents
 - + Animals, humans and diseases
- > OIE Working Groups:
 - + Wildlife
 - + Animal Production Food Safety



ONE HEALTH



regional activities

Africa

Staff movements

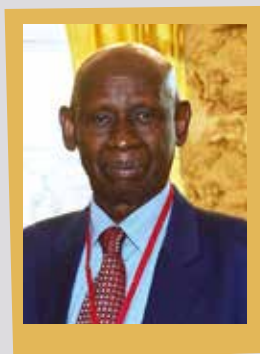
Arrivals

OIE Regional Representation for Africa

Amadou Samba Sidibé

Regional Coordinator

Dr Amadou Samba Sidibé joined the OIE Regional Representation for Africa on 1 February 2016. He will be regional coordinator of the animal health component of the Regional Sahel Pastoralism Support Project at the Regional Representation.



This Malian veterinary, who graduated from the Alfort Veterinary School (France) in 1968, began his career at Mali's national animal production research centre in Sotuba. In 1977, he was appointed Director-General of Livestock in Mali and Delegate of Mali to the OIE. In 1991, he became the first African President of the OIE. Following his term in office, it was therefore a natural progression to appoint him coordinator of the Pan African Rinderpest Campaign (PARC) in which 22 West and Central African countries took part. In 2002, he opened the OIE Regional Representation for Africa. Heavily involved in institutional strengthening, he played a major role in establishing the Regional Animal Health Centre (RAHC) in Bamako, which he had coordinated since 2007. He campaigned for the RAHC to be instituted formally as a specialist centre of the Economic Community of West African States (ECOWAS), which came to pass in 2012.

A member of many international institutions, including the International Laboratory for Research on Animal Diseases (ILRAD), Dr Sidibé chairs the academic council of Dakar Inter-State School of Veterinary Science and Medicine (EISMV) and is a member of the French Veterinary Academy. Commander of the National Order of Mali and Knight of the French Legion of Honour, Dr Amadou Samba Sidibé was awarded the Gold Medal of the OIE in 2008.

Idriss Oumar Alfaroukh

Regional Technical Assistant

Prof. Dr Idriss Oumar Alfaroukh joined the OIE Regional Representation for Africa on 15 February 2016, completing the animal health team of the Regional Sahel Pastoralism Support Project, where he will be responsible in particular of training.



A Chadian veterinarian who trained at the University of Kiev in Ukraine, Prof. Alfaroukh returned to Chad after receiving his PhD in 1983, where he took charge of the microbiology and vaccine production research department at Chad's prestigious national veterinary laboratory (LRVZ) in Farcha, which was managed by the institute for tropical animal production and veterinary medicine of the French Agricultural Research Centre for International Development (CIRAD-IEMVT). After distinguishing himself as a researcher and leader, he was appointed LRVZ Director in 1985. Doctor emeritus, he was Associate Professor of virology and bacteriology at the University of Chad. Having served as Director-General of Livestock in Chad, he left the country in 1999 to become Director-General of the Permanent Inter-State Committee on Drought Control in the Sahel (CILSS).

On several occasions during his career, Prof. Alfaroukh has held ministerial office in the Government of Chad, as well as serving as Presidential Adviser, always within his area of expertise (research and development, training and pastoralism support). He is a scientific council member of many regional and international institutions and also chaired the steering committee for Chad/French palaeontology research, which was established following the discovery, in the Sahel region of Chad, of *Sahelanthropus tchadensis*, an extinct hominid species (nicknamed 'Toumai'). Lastly he is author or co-author of numerous scientific publications, Officer of the National Order and Officer of the Order of Agricultural Merit of Chad.



Departures

Europe

OIE Regional Representation for Eastern Europe

Aleksandra Miteva

On 31 March 2016, Dr Aleksandra Miteva left the OIE Regional Representation for Eastern Europe in Sofia, Bulgaria, where she had been working as a Technical Assistant since 1 July 2013.

Dr Aleksandra Miteva has a Master's degree in veterinary medicine and graduated from the University of Forestry, Sofia, in 2006. Her professional experience has been principally in the field of animal health (surveillance and control of infectious animal diseases and zoonoses). She started her professional career as a teacher in infectious animal diseases and zoonoses at the Vocational High School of Veterinary Medicine in Kostinbrod, Sofia region.

Between 2008 and 2013, Dr Aleksandra Miteva worked as an expert at the Animal Health Directorate of the National Veterinary Service (now the Bulgarian Food Safety Agency), in the Ministry of Agriculture and Food. Her main responsibilities involved the preparation and implementation of surveillance, control and eradication programmes and contingency planning for certain infectious animal diseases and zoonoses (such as salmonellosis in poultry and pigs, avian influenza, Newcastle disease, rabies, foot and mouth disease, classical swine fever and transmissible spongiform encephalopathies). Her former work also covered epidemiology, zoonosis outbreak management, veterinary legislation relating to animal health and some animal welfare issues (such as the welfare of pigs, poultry and laboratory animals), as well as electronic systems for animal health (including the OIE World Animal Health Information System – WAHIS; the Animal Disease Notification System – ADNS; the Trade Control and Expert System – TRACES; and national identification and registration databases), preparing guidelines and instructions for the prevention and control of animal diseases, and organising courses on animal health issues.

The OIE offers special thanks to Dr Miteva and wishes her every success for the future.

OIE Sub-Regional Representation in Brussels

Stanislav Ralchev

On 29 February 2016, Dr Stanislav Ralchev left the OIE Sub-Regional Representation in Brussels, where he had been working as a Technical Assistant since 2013.

Before joining the Representation in Brussels, Dr Ralchev had already worked for the Organisation, at the OIE Regional Representation for Eastern Europe in Sofia, Bulgaria, from February 2009 until March 2013. In Brussels, he provided support for a variety of ongoing projects and activities. His main duties included the development and implementation of the OIE Regional Platform on Animal Welfare for Europe, providing help to European OIE Member Countries with the use of WAHIS and WAHIS-Wild, and assisting with OIE capacity-building activities for Europe.

Dr Ralchev graduated in veterinary medicine from the University of Sofia and also has a second Master's degree in the Management of Public Administration from the University of Liège, Belgium. Before joining the OIE, he spent almost four years as an expert on infectious diseases and animal health with the National Veterinary Services of Bulgaria. At that time, Dr Ralchev was involved in the pre-accession process as Bulgaria prepared to join the European Union (EU) and, in particular, in the harmonisation of his country's national legal framework with EU veterinary legislation. He has also contributed to the national bluetongue and foot and mouth disease surveillance plans, as well as various information systems for the OIE, EU and the European Food Safety Authority (EFSA) as an OIE National Focal Point.

On 1 March 2016, Dr Ralchev started working at the European Commission's Directorate General for Health and Food Safety (DG SANTE), in the Animal Health and Welfare unit. However, as an OIE certified expert in OIE PVS Gap Analysis and veterinary legislation, he may continue to participate in parallel in missions within the OIE PVS Pathway framework. The OIE wishes him all the best in his new duties and is proud to count him among its pool of experts.

Tribute

OIE Sub-Regional Representation for South-East Asia

Maria Cecilia Dy

It is with great sadness that we report the death of Cecilia Dy in Bangkok on 14 July 2016. Cecilia was a most valued member of the OIE Sub-Regional Representation for South-East Asia (SRR–SEA) team and would be known to many of our readers through her OIE and other work in the region.



Cecilia joined the OIE SRR–SEA in September 2011 as Communication and Monitoring & Evaluation Officer of the Australian-funded STANDZ¹ Programme. Her time with the OIE Bangkok office substantially strengthened the communications capacity of the SRR–SEA, and the significant improvement in the quality of articles published in the SEACFMD² newsletter was favourably commented on by OIE Members and partners. Dr Ronello Abila, OIE Sub-Regional Representative for South-East Asia, was highly complimentary of her work. As he said: ‘Cecilia can easily transform outputs from discussions into well-structured paragraphs. She is an eloquent, logical writer.’

She played a significant role in the implementation and improvement of the OIE Animal Health Communication Strategy for South-East Asia, initially developed in 2009. Cecilia also led in organising and implementing the key recommendations of the Sub-Regional Workshop for Animal Health Communication for South-East Asia, held in November 2015. In addition, she helped Member Countries in a variety of ways, for example, through the development of national animal health communications plans, conducting Knowledge, Attitude & Practices (KAP) surveys and coordinating socio-economic studies.

She was pivotal in developing the SRR–SEA’s first Gender Strategy and Policy Engagement Programme. These matters were very dear to her heart. She also initiated and coordinated the production of the SEACFMD video, ‘Creating Change, Changing Lives’, and a rabies video, ‘Rabies: the Philippines Responds’. Dr Gardner Murray, Special Adviser to the OIE, tells us that: ‘Cecilia was a most valued staff member of the OIE, and achieved results in a quiet, dignified and unassuming way.’

Cecilia graduated with a Bachelor’s degree in Business Administration from the Philippine Women’s University and later obtained a Master’s degree in Mass Communications from the University of Leicester in the United Kingdom.

Before joining the OIE, Cecilia worked as a journalist and communications officer in the Philippines and in Cambodia, and was also employed in various capacities with several United Nations agencies and CARE International in Cambodia. In 2005 and 2006, she worked with UNICEF Cambodia as Assistant Programme Officer and Assistant Communications Officer, aiding in the development of communication strategies and social mobilisation campaigns to control and prevent avian influenza. From 2007 to 2010, she worked for FAO Cambodia as Communications Officer for its Avian Influenza Programme. Just before joining the OIE, she was the Coordinator of CARE’s Community-Based Avian Influenza Risk Reduction Project, where she managed a communications and advocacy strategy that successfully promoted the adoption and replication of activities to prevent and control avian influenza in the community.

Cecilia was diagnosed with cancer in July 2013 and, over the last three years, underwent a series of demanding surgical and treatment procedures, which she handled uncomplainingly and with stoicism. To the greatest extent possible, and despite considerable discomfort and pain, she continued to work for the SRR–SEA, including from her flat in Bangkok. She passed away on 14 July 2016. After a Memorial Service in Bangkok, she was flown to her final resting place in Narra, Palawan, the Philippines.

1. STANDZ: Stop Transboundary Animal Diseases and Zoonoses

2. SEACFMD: South-East Asia and China Foot and Mouth Disease Campaign

Meetings

Europe

First PPR Roadmap Meeting for Central Asia/West Eurasia

Almaty, Kazakhstan, 23–25 February 2016



From 23 to 25 February 2016, Kazakhstan welcomed the first Central Asia/West Eurasia Peste des Petits Ruminants (PPR) Roadmap Meeting in Almaty, held under the GF-TADs¹ framework. The meeting was attended by 76 people, from 11 invited countries (Armenia, Azerbaijan, Georgia, Iran, Kazakhstan, Kyrgyzstan, Tajikistan, Turkey, Turkmenistan and Uzbekistan, with Russia invited to assist as an observer), and representatives of regional and international organisations that included the OIE, FAO and ECO².

The FAO/OIE Global Strategy for the Control and Eradication of PPR (the 'Global Strategy')³, adopted in Abidjan, Côte d'Ivoire, in April 2015, with the shared goal of 'PPR eradication by 2030', served as the reference document and overarching framework for the meeting.

All participating countries were invited to share their experiences of attempting to control PPR. This exercise showed that, although few countries are or have been infected with PPR (according to official declarations to the OIE), several countries conduct vaccination programmes and some also produce their own vaccines (Iran, Kazakhstan and Turkey).

A special presentation was made on the PPR outbreak reported by Georgia in early February 2016. At that time, and at Georgia's request, the FAO/OIE Crisis Management Centre for Animal Health (CMC-AH) carried out a disease

investigation in Tbilisi, the capital city. At this meeting, the CMC-AH summarised the rapid evolution of events:

- a) suspicion of the disease on a farm near Tbilisi on 12 January;
- b) assistance requested from CMC-AH on 3 February after the OIE Reference Laboratory at Pirbright, United Kingdom, confirmed PPR in 11 of the 12 samples submitted;
- c) CMC-AH mission (8–11 February).

Georgia's Veterinary Services quickly managed to implement all aspects of disease management (reporting, vaccination, laboratory diagnosis, sample shipment, stamping out, disposal of carcasses, movement control, surveillance, training, communication, etc.).

Georgia's experience provided an excellent example of the need for countries to have a clear understanding of the situation of PPR within their own borders. It highlighted the importance of a good surveillance system and regular training of veterinarians in the field and laboratories. It also showed how vital it is to involve farmers, and to have appropriate funding readily accessible and diagnostic kits easily available. Above all, it demonstrated the need for a rapid response to any suspicion of an outbreak and for expert support (OIE Reference Laboratory, CMC-AH).

The meeting provided the first opportunity for these countries to discuss PPR in a regional context. The effectiveness of control measures, serological tests to

1. GF-TADs: FAO/OIE Global Framework for the Progressive Control of Transboundary Animal Diseases

2. ECO: Economic Cooperation Organization

3. See *Bulletin*, No. 2015-2, pp. 3–5





Left to right: Drs S. Münstermann, K. Lukauskas, A.B. Mehraban, T. Kabduldanov

prove the presence of PPR, vaccination strategies – particularly for outbreak-free areas and buffer zones, vaccinating animals that had already been vaccinated or were developing PPR, and the importance of animal movements and traceability were all subjects of lively

discussion, as were questions around vaccines and their quality, an essential part of the Global Strategy. Participants addressed issues such as serotypes and types of vaccines, vaccine quality control and the exact meaning of ‘independence of vaccine producers’, the thermostability

Table I

Provisional Central Asia/West Eurasia PPR Roadmap for 2016–2030, based on self-assessment questionnaires

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Armenia	1			2				3			4		Status: Free	
Azerbaijan	1				2		3			4		Status: Free		
Georgia	1			2						4		Status: Free		
Iran	1	2					3			4		Status: Free		
Kazakhstan	3			4		Status: Free								
Kyrgyzstan	1			2					3			4		Status: Free
Tajikistan	1			2				3			4			Status: Free
Turkey (Anatolia)	2			3			4		Status: Free					
Turkey (Thrace)	3		4	Status: Free										
Turkmenistan	1				2				3			4		Status: Free
Uzbekistan	1			3				4		Status: Free				

■ Stage 1 (assessment) ■ Stage 3 (eradication)
■ Stage 2 (control) ■ Stage 4 (post eradication)



of vaccines used, immunity of animals after recovering from the disease, immunity provided by the vaccine and post-vaccination monitoring of the programme's effectiveness.

To comply with Component 3 of the Global Strategy, which promotes economies of scale by combining PPR control with activities to control other major diseases of small ruminants, the participating countries were asked to identify three other small ruminant diseases of importance within their borders that could be controlled together with PPR. Consolidated data from all ten countries gave pasteurellosis, sheep pox and goat pox, and ecthyma contagiosum (also known as orf) as the top choices.

Countries were also invited to conduct their first self-assessment of their own PPR situation and the capacity of their Veterinary Services to control it, using the PPR Monitoring and Assessment Tool (PMAT) from the Global Strategy. Group sessions enabled them to check and complete the self-assessment questionnaires that they had been asked to fill in before the meeting. The countries used this information to evaluate their PPR stage and propose their provisional roadmap for 2016–2030.

The countries agreed to engage in the implementation of the First PPR Regional Roadmap for Central Asia/West Eurasia as formulated at the end of the meeting (see Table I).

By the end of the meeting, the Regional Advisory Group (RAG) on PPR for the region had been set up, with the election of Iran (President), Georgia (1st Vice President) and Kyrgyzstan (2nd Vice President). These positions will be held by the OIE Delegate/Chief Veterinary Officer of each country.



Drs M. Taitubayev and S. Münstermann



Drs S. Münstermann and K. Lukauskas

The final recommendations of the meeting stressed the need to strengthen PPR control and coordination in the region and, with the support of ECO, to ensure the use of quality vaccines and appropriate post-vaccination evaluation.

The OIE is grateful to the Government of Kazakhstan and to Italy for their assistance in financing the First PPR Roadmap Meeting for Central Asia/West Eurasia, and particularly wishes to thank the Ministry of Agriculture of Kazakhstan for hosting the seminar and providing such excellent facilities.

All presentations given at the event, as well as a calendar and photo gallery, will be posted on the OIE regional website for Europe: web.oie.int/RR-Europe/eng/en_index.htm



Appointment of permanent Delegates

29 February 2016

Mongolia

Dr Battsengel

Dambadarjaa

Chief Veterinary Officer, Director, Veterinary and Animal Breeding Service, Ministry for Food and Agriculture



31 March 2016

Mozambique

Dr Américo Da

Conceicao

National Director, Veterinary Services, Ministry of Agriculture



13 May 2016

Trinidad and Tobago

Dr David Kangaloo

Technical Officer Animal Health, Ministry of Agriculture, Land and Fisheries



11 March 2016

Laos

Dr Somphanh Chanphengxay

Director General, Department of Livestock and Fisheries, Ministry of Agriculture and Forestry

4 April 2016

Slovenia

Dr Janez Posedi

Director General, Administration for Food Safety, Veterinary Sector and Plant Protection, Ministry of Agriculture, Forestry and Food



15 May 2016

United Arab Emirates

Dr Majid Sultan Al

Qassimi

Director, Animal Health and Development Department, Ministry of Climate Change and Environment



7 March 2016

Turkey

Dr Nihat Pakdil

Deputy Undersecretary of Ministry of Food, Agriculture and Livestock

17 April 2016

Saudi Arabia

Dr Mohammed Alblowi

Director General, Diagnostic Veterinary Laboratories, Ministry of Agriculture

18 May 2016

Montenegro

Dr Vesna Daković

Acting Director, Administration for Food Safety, Veterinary and Phytosanitary Affairs, Ministry of Agriculture and Rural Development



8 March 2016

Croatia

Dr Tomislav Kiš

Assistant to Minister, Veterinary and Food Safety Directorate, Ministry of Agriculture



19 April 2016

Afghanistan

Dr Jahangir Miakhail

Acting Director General, General Directorate of Animal Health and Production, Ministry of Agriculture, Irrigation and Livestock



1 June 2016

Belgium

Dr Jean-François

Heymans

Director 'Animal Health & Safety of Animal Products', Agence fédérale pour la sécurité de la chaîne alimentaire (AFSCA)



17 March 2016

Kyrgyzstan

Dr Kalysbek Jumakanov

Director, Chief State Veterinary Inspector (CVO), State Inspectorate of Veterinary and Phyto-Sanitary Security, Ministry of Agriculture and Food

2 May 2016

India

Mr Devendra Chaudhry

Secretary, Animal Husbandry, Dairying & Fisheries, Ministry of Agriculture and Farmers Welfare

24 June 2016

Japan

Dr Kazuo Ito

Director, International Animal Health Affairs Office, Animal Health Division, Food Safety and Consumer Affairs Bureau, Ministry of Agriculture, Forestry and Fisheries



12 May 2016

Burkina Faso

Dr Joseph Savadogo

Directeur général des Services vétérinaires, Ministère des ressources animales et halieutique



24 March 2016

Suriname

Dr Gianna Karg

Chief Veterinary Officer, Animal Production and Health Veterinary Service, Ministry of Agriculture, Animal Husbandry and Fisheries

28 March 2016

Moldova

Mr Vsevolod Stamati

Deputy Director General, National Food Safety Agency, Ministry of Agriculture and Food Industry

strengthening of Veterinary Services

OIE PVS Pathway for efficient Veterinary Services

PVS Evaluation missions

State of Play – as at 1 July 2016

OIE Region	OIE Members	Requests received	Missions completed	Reports available for distribution to donors and partners
Africa	54	53	51	43
Americas	29	26	24	19
Asia and the Pacific	32	25	24	14
Europe	53	19	19	11
Middle East	12	13	11	6
Total	180	136	129	93

PVS Evaluation mission requests

• Africa (53)

Algeria, Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Cape Verde, Central African Rep., Chad, Comoros, Rep. of the Congo, Dem. Rep. of the Congo, Côte d'Ivoire, Djibouti, Egypt, Equatorial Guinea, Eritrea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Libya, Madagascar, Malawi, Mali, Mauritania, Mauritius, Morocco, Mozambique, Namibia, Niger, Nigeria, Rwanda, São Tomé and Príncipe, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, Sudan, Swaziland, Tanzania, Togo, Tunisia, Uganda, Zambia, Zimbabwe.

• Americas (26)

Argentina, Barbados, Belize, Bolivia, Brazil, Canada, Chile, Colombia, Costa Rica, Dominican Rep., Ecuador, El Salvador, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Suriname, Trinidad and Tobago, Uruguay, Venezuela.

• Asia-Pacific (25)

Australia, Bangladesh, Bhutan, Brunei, Cambodia, Fiji, Indonesia, Iran, Japan, Dem. People's Rep. of Korea, Laos, Malaysia, Maldives, Mongolia, Myanmar, Nepal, New Caledonia, Pakistan, Papua New Guinea, Philippines, Sri Lanka, Thailand, Timor Leste, Vanuatu, Vietnam.

• Europe (19)

Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Georgia, Iceland, Israel, Kazakhstan, Kyrgyzstan, Former Yug. Rep. of Macedonia, Romania, Serbia, Tajikistan, Turkey, Turkmenistan, Ukraine, Uzbekistan.

• Middle East (13)

Afghanistan, Bahrain, Iraq, Jordan, Kuwait, Lebanon, Oman, Palestinian N.A. (observer), Qatar, Saudi Arabia, Syria, United Arab Emirates, Yemen.

In red: completed missions



Legislation missions

State of Play – as at 1 July 2016

OIE Region	OIE Members	Requests received	Missions completed
Africa	54	41	31
Americas	29	8	6
Asia and the Pacific	32	7	6
Europe	53	5	4
Middle East	12	5	4
Total	180	66	51

Legislation mission requests

• **Africa (41)**

Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Central African (Rep.), Chad, Comoros, Dem. Rep. of the Congo, Côte d'Ivoire, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Libya, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mozambique, Niger, Nigeria, Rwanda, Senegal, Seychelles, Sudan, Tanzania, Togo, Tunisia, Uganda, Zambia, Zimbabwe.

• **Americas (8)**

Barbados, Belize, Bolivia, Dominican Rep., Guatemala, Haiti, Honduras, Paraguay.

• **Asia/Pacific (7)**

Bhutan, Cambodia, Fiji, Laos, Mongolia, Papua New Guinea, Vietnam.

• **Europe (5)**

Armenia, Georgia, Israel, Kazakhstan, Kyrgyzstan.

• **Middle East (5)**

Afghanistan, Kuwait, Lebanon, Saudi Arabia, United Arab Emirates.

In red: completed missions

PVS Gap Analysis missions

State of Play – as at 1 July 2016

OIE Region	OIE Members	Requests received	Missions completed	Reports available for distribution to donors and partners
Africa	54	51	47	30
Americas	29	18	13	9
Asia and the Pacific	32	21	15	9
Europe	53	9	9	4
Middle East	12	10	4	0
Total	180	109	88	52

PVS Gap Analysis mission requests

• **Africa (51)**

Algeria, Angola, Benin*, Botswana, Burkina Faso, Burundi, Cameroon, Central African (Rep.), Chad, Comoros, Dem. Rep. of the Congo, Côte d'Ivoire, Djibouti, Egypt, Equatorial Guinea, Eritrea, Ethiopia, Gabon, Gambia, Ghana, Guinea*, Guinea-Bissau, Kenya, Lesotho, Liberia, Libya, Madagascar*, Mali, Mauritania, Mauritius, Morocco, Mozambique, Namibia, Niger, Nigeria, Rwanda, Senegal, Seychelles, Sierra Leone, South Africa, Sudan, Swaziland, Tanzania, Togo, Tunisia, Uganda, Zambia, Zimbabwe.

• **Americas (18)**

Argentina, Barbados, Belize, Bolivia, Brazil, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Jamaica, Nicaragua, Panama, Paraguay, Suriname.

• **Asia-Pacific (21)**

Bangladesh, Bhutan, Brunei, Cambodia, Fiji, Indonesia, Iran, Dem. People's Rep. of Korea, Laos, Malaysia, Maldives, Mongolia, Myanmar, Nepal, Philippines*, Sri Lanka, Thailand, Timor Leste, Vanuatu, Vietnam.

• **Europe (9)**

Armenia, Azerbaijan, Bosnia and Herzegovina, Israel, Kazakhstan, Kyrgyzstan, Serbia, Tajikistan, Turkey.

• **Middle East (10)**

Afghanistan, Jordan, Kuwait, Lebanon, Oman, Palestinian N.A. (observer), Saudi Arabia, Syria, United Arab Emirates, Yemen.

In red: completed missions

*Including second Gap Analysis missions and Aquatic Gap Analysis mission

OIE Regional Workshops

for focal points and Information Seminars for new Delegates

Asia – Pacific

Workshop on the World Animal Health Information System (WAHIS) for National Focal Points for Animal Disease Notification to the OIE

Chiba, Japan, 3–5 February 2016

A regional workshop for advanced training on the World Animal Health Information System (WAHIS) for National Focal Points for Animal Disease Notification to the OIE, held in Chiba, Japan, with support from the Republic of Korea, was attended by 40 participants, including 31 representatives from 23 OIE Member Countries and 5 non-Member Countries/territories, and one observer from the Pacific Community (SPC), as well as OIE staff.

The advanced training workshop was designed with a new approach: to be more practical, and to encourage group discussions between advanced and relatively new or less-experienced Focal Points about crucial parts of the notification process. The format of the workshop covered the legal basis of disease notification to the OIE and included exercises and group sessions on creating the various types of reports

The goals of the workshop were to provide participants with, among other things:

- information on the roles and responsibilities of Veterinary Services regarding disease notification
- training on the use of WAHIS through presentations and practical exercises based on real-life scenarios
- tools to improve the quality of information provided to the OIE
- knowledge on how to make the best use of the *Terrestrial* and *Aquatic Animal Health Codes* for decision-making on disease notification
- an update on the animal disease notification process
- an opportunity to share experiences and challenges in the region.

(i.e. immediate notifications, follow-up reports, six-monthly reports and annual reports), as well as on verifying information and identification of the most common mistakes.

Based on this new approach, each session started with a presentation to introduce each report format and

highlight its vital points.

A group exercise followed, in which participants were given various scenarios: actual cases of country reports, modified actual cases, or hypothetical scenarios created to elicit discussion and highlight areas that seemed to cause



problems when making notifications. Participants worked in small groups, shared their results and talked about those aspects of the case studies that had generated most discussion. After a practical data-entry exercise on WAHIS, each session ended with another group exercise to identify common mistakes and/or inconsistencies in reports, with a short revision procedure which the participants can follow at country level before submitting reports to the OIE, to reduce errors and improve the quality of their notifications.

The participants from Bhutan and Vietnam shared their experiences of disease reporting for terrestrial animals and aquatic

animals, respectively, focusing on national channels for animal disease notification from the field to the central authorities. These presentations generated a lot of discussion among participants on country systems for rapid and reliable notification.

The workshop also provided an opportunity for bilateral meetings between the participants and OIE staff to discuss the country reports submitted.

A self-assessment quiz was conducted before and after the training sessions, to assess the impact of the course as well as to identify areas that may need more emphasis in future. The

quiz results showed significant improvements in understanding the different aspects of the OIE's notification procedure.

This workshop reiterated the importance of transparency in animal disease notification, through diligent and complete disease reporting from OIE Member Countries, so that neighbouring countries can prepare, and put the necessary measures in place. Sharing their experiences gave participants the chance to network, while participants from non-Member Countries/territories also expressed their willingness to take part in providing notifications to the OIE.

Regional Seminar for OIE National Focal Points for Veterinary Products

Tokyo, Japan, 2–4 March 2016

The Fourth Cycle of the Regional Seminar for OIE National Focal Points for Veterinary Products, held from 2 to 4 March 2016 in Tokyo, Japan, with the support of the Republic of Korea, was attended by 54 participants, including 25 OIE National Focal Points or representatives from 24 countries/territories, and speakers and observers who included experts from the FAO, WHO, and OIE Collaborating Centres, as well as OIE staff.

During the session on the registration of VMPs, participants shared a brief overview of their country's regulatory system for registering and marketing authorisation

The programme focused on providing participants with updates on key areas, such as:

- the activities on antimicrobial resistance (AMR) of the FAO/OIE/WHO Tripartite Alliance for 'One Health'
- the collection of data on antimicrobial use (AMU) in animals
- AMR issues in aquaculture
- the quality and registration of veterinary medicinal products (VMPs)
- antiparasitic resistance
- issues and activities in OIE Member Countries of the region.

The seminar also included working-group exercises on completing OIE data collection templates on AMU in animals, and discussions of technical priorities and issues in OIE Member Countries. Each theme was introduced and updated by speakers who gave informative presentations. Several topics included national reports which enabled OIE Member Countries to exchange experiences and sparked lively discussion between participants.



for VMPs – particularly drugs and vaccines – through an interactive question-and-answer session and discussion, using short questionnaires that had been provided earlier. This highlighted the range of diverse national regulatory mechanisms for VMPs, reflecting the different situations of OIE Member Countries. Some countries explained that they had no legislative framework or domestic production, while others described their combined system for both human and veterinary medicinal products.

A working-group session was conducted to raise awareness and provide OIE National Focal Points with a good understanding of the OIE data collection project on AMU in food-producing animals, the proposed global database and the requirements of the survey questionnaire. After introductory presentations to highlight crucial points, participants were divided into four small groups (depending on their reporting status) and worked on a practical exercise to fill in the data-collection templates. They then shared their results, as well as any challenges thrown up by the process.

The session on the quality of VMPs included a presentation of the World Customs Organization (WCO) on the battle against trade in counterfeit drugs, followed by a discussion on the difficulties in detecting them. This problem requires a joint effort among the regulatory bodies in human and veterinary medical products, Customs organisations and the pharmaceutical industry at the national and international level. The development of anthelmintic resistance and the need for management strategies for helminths were also discussed.

The second working-group session was organised as a facilitated discussion, focusing on OIE Member Countries' priorities and issues as potential topics for future regional technical training sessions. After a brief introductory presentation, summarising past regional activities and training, participants were again divided into small groups, where they were asked to share the priorities and concerns of their respective countries, as well as to identify common regional priorities.





A range of proposals were raised by the four groups; in particular, the need to build capacity in the areas of:

- regulatory framework
- laboratory training
- tests and tools for control and quality assurance of VMPs, medicated feed and pharmaceutical raw materials
- AMR surveillance of both terrestrial and aquatic animals, including training on guidelines and laboratory testing
- antiparasitic drug resistance issues
- the management of drug residues.

Participants also showed interests in twinning and receiving test kits and reagents.

The seminar was conducted with technical support from three OIE Collaborating Centres – France, Japan and the United States – and the active participation of the OIE National Focal Points or representatives from countries/territories in the region. It highlighted the importance of data collection and sharing on AMU, as well as the prudent use and appropriate control of antimicrobial agents, with the help of the available OIE standards, guidelines and frameworks.

the OIE and

epidemiology & animal disease control

Senecavirus A in the United States

Report received on 10 March 2016 from Dr John Clifford, Delegate of the United States of America to the OIE, Deputy Administrator, USDA-APHIS-Veterinary Services

Animal health officials in the United States of America (US) and other parts of the world have sporadically reported cases of idiopathic vesicular lesions in swine which test negative for foot and mouth disease (FMD) and other known agents. In the past, Senecavirus A (SVA, also known as Seneca Valley virus or SVV) has been associated with a few cases of these idiopathic vesicular cases in the US. However, in the summer and fall of 2015, cases of vesicular lesions in US swine increased in multiple settings, including swine exhibitions, farrowing units, growing swine, and during ante mortem inspections at abattoirs. Although all cases tested negative for FMD, a significant proportion tested positive for SVA.

Senecavirus A is an infectious virus associated with clinical signs in swine. In 1988 the virus was first found as a contaminant in a cell culture in North America, and since then has been sporadically isolated from swine which are either asymptomatic or show vesicular lesions. Until recently, Koch's postulates had not been fulfilled with the virus despite attempts to do so by various groups. However, in October 2015, preliminary results from an ongoing collaborative study between Iowa State University and the USDA-ARS¹ National Animal Disease Center demonstrated the production of vesicular-type lesions in pigs using a recently isolated SVA.

1. USDA-ARS: United States Department of Agriculture – Agricultural Research Service



its partners

the OIE and its partners

programmes

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Senecavirus A is a positive-sense, single-stranded RNA virus of the family *Picornaviridae*, genus *Senecavirus*. It currently appears to be widely distributed in North America, with reported cases in Canada and across the US in 23 states. In Brazil large numbers of similar cases, some associated with SVA, have also been reported. However, the distribution of SVA may be even more widespread, given its possible association with idiopathic vesicular disease (IVD) of swine, which has a more global distribution.

Swine are the only species in which clinical signs have been reported. Antibodies against the virus have also been found in mice and cattle. SVA is not considered to be a zoonotic threat, and in fact its use as an oncolytic virus has been investigated in human medicine.

Clinical signs in cases from which SVA has been isolated include:

- vesicles
- erosions and/or ulceration around the coronary band, snout, tongue, and/or oral cavity
- acute lameness
- nail-bed haemorrhage
- fever
- lethargy
- anorexia.

However, the virus has also been found in diagnostic samples submitted from ill swine which do not demonstrate vesicular lesions. Often, swine present with vesicular lesions but no other clinical signs. Recently, there have also been reports in the US of SVA being associated with neonatal piglet mortality in a few affected sow herds for a short period of time, with a relatively rapid return to normal production. This has also been recently reported in Brazil.

The incubation period of SVA is currently unknown, but under study. In previous outbreaks, herd morbidity has ranged from less than 5% to up to 80%, with little to no mortality, although mortality that has been associated with SVA may be higher in neonatal populations. There is also some speculation that stress or co-morbidities may play a role in more severe manifestations of clinical signs, given that, in some cases, lesions appeared approximately one week or less after movement of the animals.

The primary differential diagnosis for SVA disease with a vesicular presentation is FMD, but other potential differential diagnoses include vesicular stomatitis, swine vesicular disease, or non-infectious causes such as chemical or toxin exposure.

The current preferred samples for laboratory testing include:

- vesicular fluid,
- vesicular epithelium, and
- vesicular lesion swabs.

It is important first to rule out FMD. Virus isolation on cells such as lamb or swine kidney cells can amplify the virus. Reverse transcription polymerase chain reaction (RT-PCR) assays can diagnose the virus (although further validation studies are needed), and sequencing can be used to detect and/or characterise the SVA. No standardised serological tests specific for SVA diagnosis are currently validated, but these are under continuing development.

The USDA-APHIS-VS² Center for Veterinary Biologics has posted Notice No. 16-03 on the acceptance of applications for SVA biologics product licences and permits³. This notice applies to both biological products (vaccines) and test kits for diagnosis.



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Voluminous bulla on the snout of a pig infected by the Seneca Valley virus

2. USDA-APHIS-VS: United States Department of Agriculture – Animal and Plant Health Inspection Service – Veterinary Services

3. Center for Veterinary Biologics (CVB) Notice No. 16-03 on 'veterinary biologics containing Senecavirus A': www.aphis.usda.gov/animal_health/vet_biologics/publications/notice_16_03.pdf



Superficial ulceration on the coronary band left after rupture of a bulla in a pig infected by the Seneca Valley virus

As a rapidly increasing number of vesicular cases presented in late summer, 2015, the USDA–APHIS–VS developed tentative SVA disease case-definition criteria for application to potential cases:

- a) *suspect case*: a pig displaying vesicular disease signs but which tests negative for foot and mouth disease virus
- b) *presumptive positive case*: a suspect case with a history of contact with an SVA-positive herd or animal
- c) *confirmed positive case*: a pig in which SVA has been detected, and which shows clinical signs consistent with the disease and tests negative to other vesicle-causing viruses, such as FMD, vesicular stomatitis and swine vesicular disease viruses.

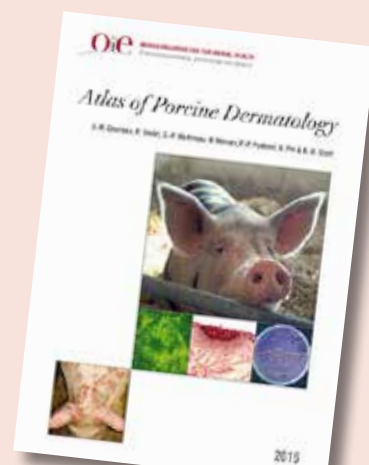
Senecavirus A alone is not reportable in the US. However, all swine herds exhibiting vesicular lesions must undergo full foreign animal disease investigations by regulatory officials to rule out FMD. This increase in cases has resulted in a large increase in the volume of samples submitted to the official USDA Foreign Animal Disease Diagnostic Laboratory (FADDL) at Plum Island, New York.

In recent years, the USDA has deployed a validated FMD PCR assay to several National Animal Health Laboratory Network (NAHLN) laboratories that were proficiency tested and approved to use this assay in accordance with federal guidelines. As reported cases escalated

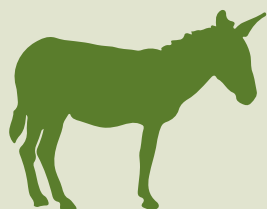
rapidly in August and September of 2015, this NAHLN-based FMD screening test was used to allow state animal health officials and Veterinary Services personnel the flexibility to permit ongoing swine movement in select situations. However, under current USDA policy, duplicate samples must be collected in the field at the same time as the locally tested samples and immediately forwarded to the FADDL to definitively rule out foreign animal diseases.

Multiple studies are now under way in the US to better understand SVA infection dynamics and possible reasons for the recent surge in clinical cases. The incubation period and duration of viral shedding in affected herds is still undergoing study. Work is continuing to develop improved antigen-based (PCR) assays and reliable serological tests to better assess the ecology, clinical presentation, and prevalence of this virus in the US swine herd. Some have speculated that warmer weather with associated movement stress may be a factor in exacerbating the clinical presentation of lesions; however, it is too early to know if a surge in cases will occur again in summer and fall of 2016. Fortunately, in early 2016, reported cases have subsided, but not completely ceased. Swine industry and regulatory officials remain alert for a possible recurrence of multiple cases requiring confirmatory FMD rule-out.

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web.oie.int/boutique/index.php?page=ficprod&id_produit=1446&lang=en



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The OIE standard on the welfare of working equids

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Keywords

Animal welfare – OIE – working equid.

Summary

Working animals play an important role in agriculture and the transport of goods and people in developing countries. Working equine animals support an estimated 300 million people globally, often in the most marginalised communities [1]. The contribution of working animals to livelihoods is not well understood and many suffer significant health and welfare problems. In 2013, the Director General of the OIE commissioned a Discussion Paper on

the future role of the OIE with respect to the welfare of working animals. In 2014, an *ad hoc* expert group reporting to the Terrestrial Animal Health Standards Commission (the Code Commission) was convened to draft an OIE standard on the welfare of working equids. In September 2014 and 2015, the Code Commission reviewed and distributed the Group's reports for review by Member Countries. In May 2016, a new chapter on the welfare of working equids was adopted by the OIE World Assembly of Delegates for inclusion in the *Terrestrial Animal Health Code (Terrestrial Code)* [2].

The new standard covers the provision of shelter, feed and water; foot care; the management of disease and injuries; handling practices, including harnessing, work-load and mutilation; animal behaviour; veterinary care; and the management of an equid at the end of its working life.

This article discusses the background to the OIE's initiative to improve the welfare of working animals and presents the rationale for the new *Terrestrial Code* chapter on the welfare of working equids, based on the text distributed as Annex 20 to the report of the Code Commission meeting in September 2015 [3].





Background

Agriculture is the main source of livelihood for 2.5 billion people and, with rural development, is widely acknowledged as a pathway out of poverty and a key contributor to food security. Working animals are critical to the functioning of farming systems and work in construction industries in many developing countries. A recent study showed how the health, wellbeing and social status of women in poor rural communities is improved by ownership of working equids, in many cases, donkeys [3]. These animals' health and welfare have a direct impact on their capacity to work and this affects the livelihoods and wellbeing of their owners. In many parts of the world, the use of working animals is expanding; it is possible that increased fuel prices have contributed to this trend [4]. Even in countries that are rapidly becoming urbanised and industrialised, working animals are still important; large-scale

farms may use modern equipment and transport systems but small-scale farmers still depend on animals for transport (especially 'the first mile') and for draught power [5]. Despite the important contribution made by working animals to the livelihood of many poor people in both rural and urban settings, government policies and programmes on food security largely ignore working animals and there are few laws or standards that address their health or welfare [1]. Economic factors constrain marginalised communities from accessing resources such as feed and water, farriery and harness, appropriate shelter and health care for working equids. Poor and sometimes dangerous working conditions and the inadequate provision of basic resources present serious challenges to the welfare of these animals [1].

At its annual meeting in June 2012, the OIE Animal Welfare Working Group (AWWG) proposed that

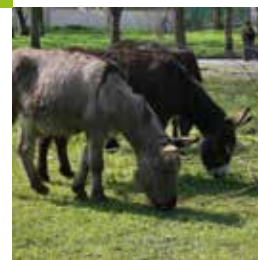
the OIE develop recommendations on the welfare of working animals. In 2013, the Director General of the OIE commissioned a Discussion Paper on the future role of the OIE with respect to the welfare of working animals [6]. In June 2013, the AWWG supported the development of an OIE standard on working equids as a new chapter in the *Terrestrial Code* and in 2014, the OIE Director General convened an *Ad hoc* Group on the Welfare of Working Equids, reporting to the Code Commission. The Group met in June 2014 and May 2015 and the Code Commission provided copies of its reports and recommendations to Member Countries in September 2014 and 2015 [3, 8]. The Code Commission proposed the adoption of a new *Terrestrial Code* chapter on the welfare of working equids and the new Chapter 7.12. was adopted by the OIE World Assembly in May 2016 [2].



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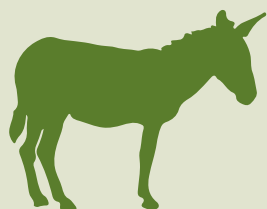


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The OIE *Ad hoc* Group on the Welfare of Working Equids

The *Ad hoc* Group held meetings in June 2014 and May 2015 and worked by correspondence between meetings. The Group's Terms of Reference were 'to draft animal welfare standards for working equids for inclusion in the *Terrestrial Code*'. The standards would be based on science and would address animal-based criteria. They would cover, inter alia:

- guiding principles;
- definitions, including animal species, type of work, geographical considerations and issues relevant to owners and handlers of working equids;
- issues that are relevant to the welfare of working equids, including the provision of feed, water and shelter, the management of disease and injuries, handling practices,

facilities in which working equids are held, education and training of handlers, behavioural issues and issues relevant to the end of life;

- responsibilities and competencies of veterinary authorities, other government agencies, private veterinarians, NGOs, those responsible for education, users and the public.

These Terms of Reference followed the recommendation in the OIE Discussion Paper that 'the welfare of animals used in transport and traction in poor communities, including in rural and urban settings, should be addressed as a matter of high priority due to the contribution that these animals can make to livelihoods and in light of the urgent need to improve the welfare of these animals'. At its June 2013 meeting, the OIE AWWG recommended that standards be developed 'in relation

to horses, donkeys, cattle, buffalo and camelidae, initially, with consideration of other species later on'. Noting that there is extensive literature on the welfare of working equids, including donkeys, the AWWG recommended the development of a standard on working equids, which could serve as a model for the development of 'working animal standards' for species that have not been as well studied. The Code Commission supported this recommendation.

Working animals: a new issue for OIE standards

The OIE had already adopted animal welfare standards in relation to livestock and farmed fish, stray dog populations and laboratory animals [9]. As working animals had not previously been the subject of specific OIE standards, the *Ad hoc* Group took care to ensure



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that its recommendations would be coherent with the *Terrestrial Code* framework and established standards. To this end, the Group recommended the following amendments to existing chapters in the *Terrestrial Code*.

1. Clarifying the role of Veterinary Services in relation to working animals

The role and responsibilities of the Veterinary Services are defined and related quality criteria are set out in Section 3 of the *Terrestrial Code* [2]. In many countries, working equids are not in national animal health (or welfare) programmes and in some cases they are not covered under the national veterinary legislation. The 24th edition of the *Terrestrial Code* (2015) did not make reference to working animals [10]. With a view to clarifying the overall responsibility of the Veterinary Services for the health and welfare of working animals, the *Ad hoc* Group recommended the addition of new text to Chapter 3.4. on veterinary legislation (Box 1).

Box 1

Addition of text to Article 3.4.10., point 3, as follows:

Veterinary legislation should provide a basis for actions to address the requirements in Chapter 7.12. and, as appropriate, the definition of owner responsibilities for their animals, and management of abandoned animals, including transfer of ownership, veterinary interventions and euthanasia.

2. OIE guiding principles for animal welfare

Terrestrial Code Article 7.1.2. sets out the OIE guiding principles for animal welfare. Point 5 of this article lists the ways in which animals contribute to human wellbeing. While agriculture is identified, working animals are not mentioned. In 2015 the *Ad hoc* Group recommended the addition of a reference to animals used for transport and traction in this point. Point 7 of this article, which sets out aspects of the rationale for improving animal welfare, states that improvements in farm animal welfare can often improve productivity and food safety and lead to economic benefits. Working animals are not 'farm animals' in the sense of animals reared for the production of meat, milk and other products for human use, which were the initial focus of the animal welfare standards in the *Terrestrial Code*.

To highlight the economic and social contribution of working animals, in 2015 the *Ad hoc* Group recommended the addition of a new Point 8 to Article 7.1.2. (Box 2).

Box 2

Addition of text to Article 7.1.2. Guiding Principles for Animal Welfare (new point 8), as follows:

That, as living assets, working animals play a significant role in supporting the livelihoods of families who own them and in fulfilling socioeconomic functions that benefit animal owning households and the wider community including national economies.

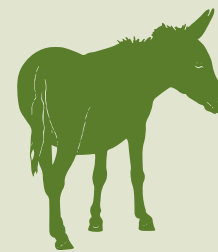
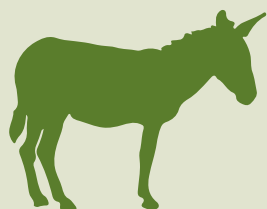
The above-mentioned amendments, together with a draft *Terrestrial Code* chapter on the welfare of working equids, were distributed to Member Countries with the report of the Code Commission's meeting in September 2014 [8].

Terrestrial Code Chapter 7.12. on the welfare of working equids

Following an introductory first article, Article 7.12.2. (Scope and Definitions) indicates that the chapter applies to 'horses, mules and donkeys that are destined, used for and retired from traction and, transport, and generation of income'. Equids used in sports or competitions, leisure riding or research are excluded. This article also includes a definition of 'harness'. Serious animal welfare problems result from the use of harness that is unsuitable for equids, so this is an important aspect of the standard.

Article 7.12.3. deals with the required knowledge and skills of organisations and individuals that have responsibility in relation to working equids. Improving the health and welfare of working animals requires a range of practical approaches that must be grounded in the cultural and economic reality of those who own and use them. It is also important to increase recognition by policy-makers of the critical links between working animals and livelihoods, to ensure that policies promoting the welfare of working animals are enacted and implemented [5]. In common with other OIE animal welfare standards, Chapter 7.12. recognises that the knowledge and skills of animal owners and handlers, as well as responsible





authorities, are critical to achieving good animal welfare outcomes.

Article 7.12.4. addresses 'criteria or measurables' for the welfare of working equids. The phrase 'criteria or measurables' is found in the *Terrestrial Code* Chapters 7.9., 7.10. and 7.11., on animal welfare in livestock production systems. The consideration of criteria or measurables is presented in Chapter 7.1., Introduction to the Recommendations for Animal Welfare, notably Article 7.1.3. on the scientific assessment of animal welfare. This article advises that the assessment of animal welfare may take into account elements such as harm arising from injury, disease or malnutrition. An animal's needs and affective states (e.g. hunger, pain, fear), may be assessed by measuring preferences, motivations and aversions. Physiological, behavioural and immunological responses to challenges can also provide an indication of an animal's welfare. The development of criteria and indicators based on these types of measure can provide a reliable, practical and scientifically valid method for evaluating animal welfare.

Article 7.12.4. describes eight relevant 'criteria or measurables' for assessing the welfare of working equids, i.e. behaviour; morbidity; mortality; body condition and physical appearance; response to handling; consequences of management practices; lameness; and fitness for work. The *Ad hoc* Group noted that other measures may be appropriate in addition to those listed.

Articles 7.12.6. to 7.12.13. make recommendations on the management of working equids (Box 3). Each article includes a list

of the relevant 'criteria or measurables' based on Article 7.12.4. The OIE recommendations on working equids are consistent with the approach in other OIE animal welfare standards. As mentioned in the definition of animal welfare in the *Terrestrial Code* Glossary, 'good animal welfare requires disease prevention and appropriate veterinary treatment, shelter, management and nutrition, humane handling and humane slaughter or killing'.

Box 3

Topics covered by the OIE recommendations on the management of working equids

- feeding and the provision of water (Article 6)
- shelter, including heat stress, cold and protection from predators and injury (Article 7)
- biosecurity, disease prevention and animal health (Article 8)
- handling and management practices (Article 9)
- behaviour and social interactions (Article 10)
- end of working life (Article 11)
- appropriate workloads (Article 12)
- farriery and harnessing (Article 13)

Discussion

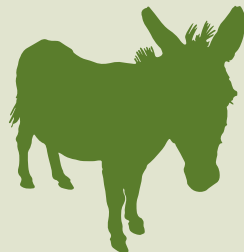
As this was a new topic for incorporation into the OIE standards, it was important for Member Countries to understand the justification for and the

implications of Chapter 7.12. As stated in *Terrestrial Code* Article 7.1.2: 'the use of animals carries an ethical responsibility to ensure the welfare of these animals to the greatest extent practicable'. At a meeting with the *Ad hoc* Group in May 2015, the Director General of the OIE highlighted the importance of adopting these new standards, noting that working animals are an important source of employment, income and social cohesion in many Member Countries. He noted the important role of the Veterinary Authority and other authorities, such as local governments, in assuring good welfare outcomes. He also highlighted relevant OIE recommendations on the inclusion of animal welfare in veterinary curricula.

The *Ad hoc* Group discussed the fact that the health status of the national equid population is poorly understood in many developing countries. The explicit inclusion of working equids in animal disease surveillance programmes should improve knowledge of the national equid disease situation and can encourage the Veterinary Services to move from a reactive policy to a more strategic, preventive approach. Increased reporting of disease in equids to the OIE would improve global transparency in the global animal disease situation.

In the past decade, general awareness about animal welfare has increased in many countries. With respect to international trade, the growth of animal welfare related requirements and specifications for livestock has stimulated the implementation of animal welfare policies and programmes in many countries. However, the working animal





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sector is still largely 'invisible' and programmes to improve the health and welfare of working equids in developing countries generally depend on the activities of some dedicated NGOs. There is a need to ensure that working animals are recognised as indispensable to the lives of poor people, playing a part in alleviating human poverty, in order to advocate for changes in policies and practice to improve their welfare [1].

The OIE continues to be a driver of progress in the animal welfare domain. It has formed productive partnerships with international industry groups and NGOs. Member Countries and international donor organisations interested in animal welfare have made significant contributions to the OIE Animal Health and Welfare

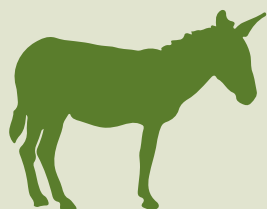
Fund to support relevant projects. Good progress has been made in the adoption of standards: as of June 2016, there are twelve animal welfare chapters in the *Terrestrial Code* and four chapters on the welfare of farmed fish in the *Aquatic Animal Health Code* [9].

The OIE is also working to encourage Member Countries to implement the adopted standards. To this end, the OIE convened Global Conferences on Animal Welfare in 2004 (Paris), 2008 (Cairo) and 2012 (Kuala Lumpur), and a fourth such Conference will be held in Mexico in 2016. The OIE supports regional animal welfare initiatives that promote the application of animal welfare standards by Member Countries. The OIE regions

of Asia, the Far East and Oceania, the Americas, the Middle East and Europe have taken relevant initiatives and an appropriate approach is under development for the region of Africa. With respect to education and training, the OIE delivers an ongoing programme of seminars for designated national Animal Welfare Focal Points and, since 2012, the OIE has trained more than 400 participants from the public and private sectors under the Improved Animal Welfare programme (IAWP) [9].

Notwithstanding the efforts of the OIE and partner organisations, including NGOs, the integration of animal welfare into legislation, policies and programmes relevant to agriculture and livelihoods remains





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inadequate and the welfare of working animals continues to be neglected.

Future steps

Improving the health and welfare of working animals requires a practical approach, based on the economic reality facing the people who own and use them [1]. As recommended in the OIE Discussion Paper, in addition to developing standards, the OIE should identify actions to promote the welfare of working animals and, with this objective, to secure engagement not only of Veterinary Services but also of government agencies responsible for

social and economic development, and of donor organisations [7].

The OIE will consider developing welfare standards for other species of working animal in future.

Conclusion

The economic and social importance of working animals is largely overlooked by Veterinary Services and in many developing countries these animals are not considered in veterinary legislation, policies or programmes. With the goal of improving the health and welfare

of working animals, the OIE has developed a standard for the welfare of working equids.

The OIE encourages Member Countries to implement adopted standards. In relation to working animals, the OIE urges governments and donors to consider including actions to improve animal health and welfare when planning investments that address livelihoods and food security.

It is important that policy-makers recognise the critical linkages between working animals and livelihoods to ensure the adoption





of policies that are appropriate to working animals. The veterinary profession should show leadership in actions to improve the health and welfare of working animals, with an emphasis on effective collaboration between governments, academia, the private sector and NGOs.

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Naming of emerging diseases Simulation exercise with WHO and FAO

In May 2015, the World Health Organization (WHO), in consultation and collaboration with the Food and Agriculture Organization (FAO) and the World Organisation for Animal Health (OIE), published guidelines on best practices for naming new human diseases¹. The aim of the best practices is to avoid negative impacts on trade, travel, tourism or animal welfare, as well as to avoid causing offence to any cultural, social, national, regional, professional or ethnic groups.

There have been a few examples in recent times of disease outbreaks that have had unfortunate consequences related to those impacts mentioned above. Examples include swine flu, which is now referred to as 'variant influenza A(H1N1)', Middle Eastern respiratory syndrome (referred to as MERS-CoV), and Schmallenberg virus. Although the latter is not a disease that affects humans, it was named after the town in which it emerged. While the names of these diseases were chosen without the intention of doing harm, they were sensationalised in the media and had a negative, isolating effect on the associated nations' people, animals and economies.

In order to test the best practices, colleagues at WHO set up a simulation exercise, which included a fictional disease outbreak, to test the organisations' readiness to implement the naming process. After many weeks of preparation on the part of WHO and assembling of teams from FAO and OIE, the three-hour exercise was launched on 27 November 2015. It was administered through the Strategic Health Operations Centre at WHO via WebEx so that colleagues could interact through video conferencing.

In addition to testing the best practices for naming of diseases, the exercise was intended to confirm roles, specific staff responsibilities and other internal processes, as well as to test communication and collaboration amongst the organisations. The team from the OIE included representation from the Communications Unit as well as the Scientific and Technical Department and the World Animal Health Information and Analysis Department.

With no knowledge of the scenario, and armed only with a handbook that described the objectives of the exercise along with the scope of the best practices, the 'players' from each organisation were expected to 'react' to the information being provided in real time and to apply the best practices.

Briefly, the best practices are outlined in Table I on next page, with some examples.

These identifiers lead to a scientific and objective approach that avoids the domain of the dramatic and the sensational. In contrast, names that may incite fear (e.g. unknown, death, fatal, epidemic) or include geographical locations, people or references to culture, population, industry or occupation lead directly down a negative and subjective path.

The players were challenged not to go down this path as the scenario unfolded and ultimately identified geographical locations, animal populations and occupations of those affected by the disease. Knowing what to avoid, the players focused their attention on the best practices while observing the facts and not jumping to any conclusions.

Interjected in the scenario were media reports with sensational names for the emerging disease, to which the players were asked to respond using Table I in an attempt counteract the impact. This was not an easy task because, as experience has shown, once a name is used by the media it is difficult to alter it. However, the three organisations persisted in deriving an appropriate name, and after three hours of role-playing an interim name

1. Naming diseases: First do no harm, *Science*, 8 May 2015, vol. 348, issue 6235, p. 643 (doi:10.1126/science.348.6235.643). See also the OIE *Bulletin*, No. 2015-3, p. 86



Table I
Best practices for naming diseases

Disease names may include	Examples of useful terms
Generic descriptive terms (clinical symptoms, physiological processes, and anatomical or pathological references/systems affected)	<ul style="list-style-type: none"> – respiratory, neurologic, hemorrhagic – hepatitis, encephalitis, encephalopathy, diarrhoea, enteritis, immunodeficiency, palsy – pulmonary, cardiac, gastrointestinal, spongiform – syndrome, disease, fever, failure, deficiency, insufficiency, infection
Specific descriptive terms <ul style="list-style-type: none"> – Age group, population of patients – Time course, epidemiology, origin – Severity – Seasonality – Environment 	<ul style="list-style-type: none"> – juvenile, paediatric, senile, maternal – acute, sub-acute, chronic, progressive, transient, contagious, congenital, zoonotic – severe^A, mild – winter, summer, seasonal – subterranean, desert, ocean, coastal, river, swamp
Causal pathogen and associated descriptors	<ul style="list-style-type: none"> – coronavirus, salmonella/salmonellosis, influenza virus, parasitic – novel^B, variant, reassortant – subtype, serotype
Year (+/- month) of first detection or reporting ^C	– 2014, 3/2014
Arbitrary identifier	– alpha, beta, a, b, I, II, III, 1, 2, 3

- A. 'Severe' is appropriate to use for diseases with a very high initial case fatality rate (CFR), recognising that the CFR may decrease as an event progresses
- B. 'Novel' can be used to indicate a new pathogen of a previously known type, recognising that this term will become obsolete if other new pathogens of that type are identified
- C. A date (year, or month and year) may be used when it is necessary to differentiate among similar events that happened in different years

was agreed on: NOS2015 (Novel Orbivirus Syndrome 2015). This does not give the reader much insight into the background of the emerging disease but it completely removes any subjectivity that could prove to be harmful.

At the conclusion of the exercise, it was noted by the participants that, in a 'real' scenario, implementation of the naming best practices would be more complicated. In reality, this exercise is not about the three international organisations – there is a much bigger picture. In the countries in which the events are unfolding there are political, national and regional players to consider, along with media, industry and other critical partners. Of course, the 'biggest problem' is timing – a name is always going to get out before the organisations have a chance to react.

To work on this aspect, there will be other exercises, such as expanding the actions of the communications units of the three organisations to include the development of key messages and press releases within a certain time frame. In addition, the possibility was raised

of developing communications tools for education and collaboration with key players in the media and others, including national livestock associations and potentially OIE Delegates. In any case, cooperation needs to be established before an event or crisis occurs.

Apart from the excellent opportunity to participate in the simulation, the exercise shone a light on how we, at the OIE, can improve our accountability and performance in responding to such events. This could be through the establishment of standard operating procedures that would include Headquarters, Regional and Sub-Regional Representation, Specialist Commissions, networks and OIE Delegates. And finally, given that the best practices were specifically designed by WHO for naming emerging diseases in humans (with or without a zoonotic element), it is worth considering whether the OIE should invest time and energy in the development of best naming practices for animal diseases (the full spectrum: terrestrial, aquatic and wildlife) that do not have a human health component.

WHO best practices for the naming of new human infectious diseases:
http://apps.who.int/iris/bitstream/10665/163636/1/WHO_HSE_FOS_15.1_eng.pdf?ua=1

activities of Reference Laboratories & Collaborating Centres

Annual reports for 2015 of reference centres for terrestrial animal diseases

Annual reports have been received from 200 out of 209 Reference Laboratories and from 44 out of 46 Collaborating Centres for terrestrial animal diseases or topics.

The international activities relevant to the work of the OIE are summarised in the following tables:

Table I
2015 OIE Reference Laboratory activities

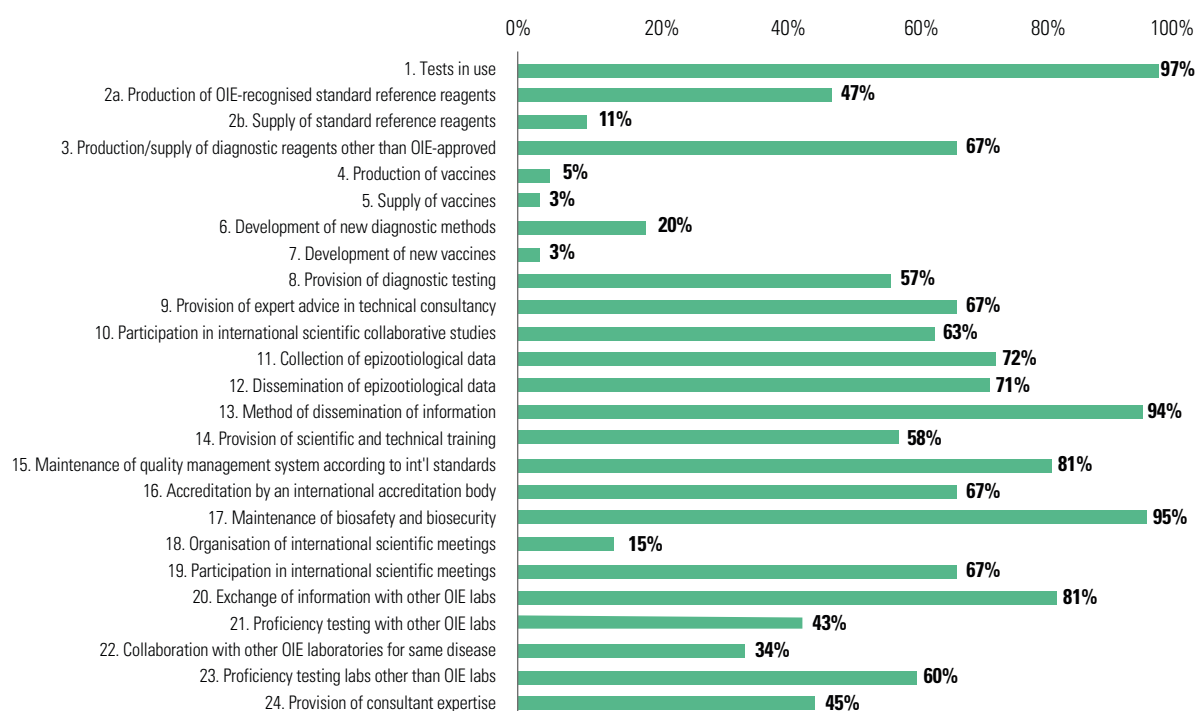
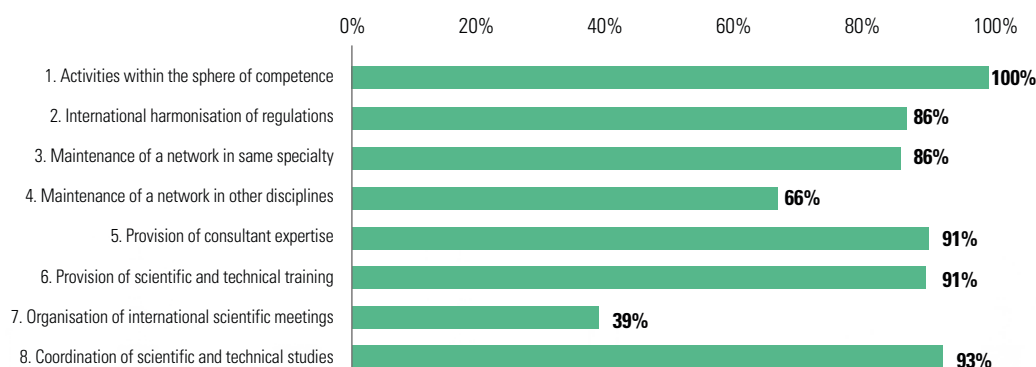


Table II
2015 OIE Collaborating Centre activities





Continuing progress towards good management practice: 2015 audits of selected OIE laboratory twinning projects

Now entering its tenth year, the OIE Laboratory Twinning Programme continues to prove its worth as a robust and effective platform for sustainable capacity-building and networking.

Each twinning project links an OIE Reference Centre ('Parent Laboratory') with a national laboratory ('Beneficiary Laboratory') that wants to enhance its technical capacity and expertise, to improve its ability to undertake disease prevention, detection and control and to contribute to stronger global health security.

Today, OIE twinning projects are delivering expertise and technical capacity to more than 50 laboratories across all five continents. At the end of March 2016, 28 projects had been completed and 35 projects were under way, involving a number of terrestrial and aquatic diseases and animal health topics. Four new OIE Reference Laboratories and one new OIE Collaborating Centre have been recognised by the OIE World Assembly of Delegates, after the completion of these twinning projects.

To ensure good management practice for these projects, the OIE has developed a Guide to OIE Certified Laboratory Twinning Projects, which provides

detailed information on the role of each twinning partner for the successful execution of a project. The Guide includes advice on how to monitor project performance, improve communication between the partners, verify expenditure as well as reporting requirements, and ensure successful project closure. For each laboratory twinning project, a contract, including a technical proposal and a budget, is agreed and signed between the OIE and the twinning partners before the project begins.

Following on from the lessons learned from the technical and financial audits of three laboratory twinning projects in 2011, the OIE decided to conduct a new round of technical and financial audits in 2015. Their main purpose was to collect information from four randomly selected laboratory twinning projects and to gather implementation experiences, including challenges and successes, to improve the overall efficiency and effectiveness of the programme.



The following four OIE laboratory twinning projects participated in a technical and financial audit in 2015:

- *Centre de coopération internationale en recherche agronomique pour le développement* (CIRAD), France, and *Centre international de recherche-développement sur l'élevage en zone subhumide* (CIRDES), Burkina Faso, on African trypanosomiasis (April 2015)
- *Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise 'G. Caporale'* (IZSAM), Italy, and *Institut de la recherche vétérinaire de Tunisie* (IRVT), Tunisia, on bluetongue (April 2015)
- Animal and Plant Health Agency (APHA), United Kingdom, and Botswana National Veterinary Laboratory (BNVL), Botswana, on avian influenza–Newcastle disease (November 2015)
- National Centre for Foreign Animal Disease (NCFAD), Canada, and *Laboratorio Nacional de Diagnóstico Veterinario* (LNDV), Colombia, on avian influenza–Newcastle disease (November 2015).

A team of two – a technical auditor and a financial auditor – conducted the audits, which included an on-site visit to each of the laboratories involved. Before the mission, the auditors were given all relevant technical and financial documentation, with details of the procedures, the project contract, and project reports provided to the OIE by the Parent Laboratories. During the audit, the auditors were asked to provide an independent and external opinion on the technical and financial compliance of the project proposal approved by the OIE.

The auditors were granted unrestricted access to all available technical and financial information on the twinning project by the laboratories and undertook interviews with all laboratory staff engaged in the project.

The technical audit officer assessed whether the objectives of the twinning project were being met or had been achieved within the designated timeframe of the project. Moreover, the auditor evaluated the overall implementation of the twinning project in accordance with the terms and conditions of the twinning contract, verified the details and scope of the actual activities undertaken with those described in the work plan, reviewed evidence of these activities, including training materials, reports and joint publications, and, finally, evaluated the degree to which the Beneficiary Laboratory had increased its capacity and expertise as a result of the twinning project.

The financial auditor verified the accounting procedures and expenditure to ensure accuracy and consistency with the twinning contract, checked the eligibility of expenses, and reviewed all relevant financial and administrative documentation.

Within two weeks of completing the audit, the auditors submitted a detailed report to the Director General of the OIE. The report provided detailed information on the technical and financial audit procedures carried out, the personnel interviewed, outcomes of the audit, and a summary of the technical and financial aspects verified. The report also offered conclusions on whether and how well the project had achieved its expected results, along with a list of recommendations for the future of the twinning programme, and lessons learned to improve the implementation of other OIE laboratory twinning projects worldwide.

The OIE shared a copy of the audit report with the twinning project partners who, in turn, were given an opportunity to comment, contest conclusions or provide clarifications.

More importantly, the audit reports clearly demonstrated that considerable successes had been achieved by the audited projects and that the implementation of audits is a useful tool for the OIE to monitor, evaluate and improve the efficiency of its laboratory twinning programme.



End of the OIE Laboratory Twinning Project between the *Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise 'G. Caporale'*, Italy, and the National Veterinary Reference Centre, Kazakhstan, for the diagnosis and surveillance of brucellosis

Astana, Kazakhstan, 3–4 December 2015

The OIE Laboratory Twinning Project between the *Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise 'G. Caporale'* (IZSAM, in Teramo, Italy), the OIE Reference Laboratory for Brucellosis, and the National Veterinary Reference Centre (NVRC, in Kazakhstan) was intended to support the diagnosis and surveillance of animal brucellosis in Kazakhstan, by building the NVRC's capacities and enhancing its scientific capabilities. This project was funded by the Italian Republic through the OIE World Fund. A final meeting was organised for 3–4 December 2015, in Astana, Kazakhstan, to present the results to representatives of neighbouring countries and formally end the project.

The meeting was organised by the OIE Sub-Regional FMD Coordination Unit Office in Astana, in collaboration with IZSAM, the NVRC and the Kazakh Science Research Veterinary Institute (KazSRVI). Some 33 participants attended the meeting, including Dr Samat Tyulegenov, Delegate of Kazakhstan to the OIE, and representatives from the Veterinary Services of several Central Asian countries (Azerbaijan, Kyrgyzstan, Tajikistan and Uzbekistan).

During this meeting, IZSAM underscored the important role of an OIE Reference Laboratory, which is to provide scientific and technical assistance as well as expert advice

on topics linked to disease diagnosis and control. It was noted that all diagnostic methods should be carried out in accordance with the OIE intergovernmental standards, including: the standardisation and validation of methods; the development of new procedures for the diagnosis and control of brucellosis; the implementation of regular inter-laboratory proficiency tests to ensure comparability of results; and the quality assurance system for diagnostic procedures. In this Twinning Project, particular emphasis was placed on an epidemiological assessment of the brucellosis situation in the country; training staff on serology, bacteriology, media production and molecular biology;



Participants at the meeting – Twinning Project experts from IZSAM, Italy, and the NVRC, Kazakhstan, with representatives of Kazakhstan, Azerbaijan, Kyrgyzstan, Tajikistan and Uzbekistan



and disseminating the results of the conducted tests.

During the meeting, the NVRC provided an overview of Kazakhstan's national epidemiological situation for brucellosis, and presented the results it achieved through the Twinning Project. Invited neighbouring countries Uzbekistan and Tajikistan presented the epizootic situation of brucellosis in their own territories over the past ten years. For its part, IZSAM reiterated its willingness to support Central Asian countries in laboratory-related work on brucellosis, particularly given that brucellosis is an endemic disease in the sub-region. The importance of cooperation among

neighbouring countries was highlighted, and representatives from the invited countries gave presentations on their national brucellosis situations, and their experiences in controlling the disease.

All participants were very conscious of the persistence of brucellosis in their sub-region, as well as the associated economic losses and serious consequences to human health, and so emphasised the need for a Sub-Regional Reference Laboratory to assist them in their anti-brucellosis programmes.

Through this Twinning Project, the NVRC has considerably improved its capacity building and extended the skills of its personnel for diagnosis and surveillance of animal brucellosis in the

region. Though the project may now be officially completed, it is hoped and envisaged that the NVRC will continue its post-twinning activities and commitment to advancing its skills and facilities, with the aim of acquiring the status of 'OIE Reference Laboratory for Brucellosis' in the future. With full political and financial support for its equipment, personnel and further training, the NVRC will work on maintaining its systems of quality assurance, biosafety and biosecurity for this disease.

The OIE would like to thank the Ministry of Agriculture of Kazakhstan for hosting the meeting.

Evaluation and adoption of a new international reference standard for bovine tuberculin

Introduction

Bovine tuberculin purified protein derivative (Bo-PPD) is an essential tool in the diagnosis of bovine tuberculosis, a zoonotic infection that remains of concern in many countries of the world. The main use of Bo-PPD is as a skin-test antigen for intradermal inoculation to detect delayed-type hypersensitivity reactions to *Mycobacterium bovis* infections. It is also used as antigen for *in vitro* tests to detect cellular immunity, such as the gamma interferon test.

The OIE *Manual of Diagnostic Tests and Vaccines for Terrestrial Animals* (the *Terrestrial Manual*) describes diagnostic procedures for bovine tuberculosis, as well as the method of manufacture of Bo-PPD. The latter requires that the potency of the product is determined by comparison with a standard reference preparation. Similar requirements are found in national and regional standards, such as Title 9 of the Code of Federal Regulations (9-CFR) in the USA and the European Pharmacopoeia.

Current international standard for bovine tuberculin

The International Standard for Bovine Tuberculin (ISBT) was originally donated by the *Centraal Diergeneeskundig Instituut*, Rotterdam, the Netherlands. It was evaluated in an international collaborative study coordinated by the Weybridge laboratory, United Kingdom (UK), on behalf of the World Health Organization (WHO), and was subsequently adopted by WHO as the ISBT. At that time (1986), Weybridge was a WHO Reference Laboratory for International Biological Standards. Subsequently (around 1999), Weybridge withdrew from that designation and the role and all the reference materials were transferred to the UK's National Institute for Biological Standards and Control (NIBSC) in North London, which is still the WHO Laboratory for International Biological Standards.

In 1986, the OIE had not yet developed its network of Reference Laboratories, nor had it designated standard reference materials, so WHO



was filling the existing void by establishing certain veterinary reference materials, some of which remain in use today.

Supplies of the ISBT are now running low and, in order to ensure continuity, purity and efficacy, it is essential that a replacement preparation be developed, evaluated and submitted for formal designation.

The role of the OIE

One of the key activities of the OIE Biological Standards Commission is to promote the international standardisation of diagnostic tests, including the preparation and distribution of standard reagents. Neither the OIE nor the Commission distributes such reagents directly, but provides contact details for the Reference Laboratories where such materials may be obtained.

Guideline 3.6.6. of the *Terrestrial Manual* provides for the 'Selection and use of reference samples and panels' (adopted in May 2014). This guideline is principally focused on samples collected from animals for use as reference materials in a variety of *in vitro*

assays. The tuberculin test is rather different, in that it depends on antigens prepared *in vitro* for use in an *in vivo* assay. The requirements for standardisation are therefore more akin to those applied to vaccine production, and the principles set out in Chapter 1.1.6., 'Principles of veterinary vaccine production', should be considered. As there is no OIE standard, as such, for the preparation of primary reference materials for *in vivo* diagnostic products, the OIE has identified a need for the development of a specific protocol for the standardisation of bovine tuberculin. The Biological Standards Commission therefore asked the OIE to convene a group of experts to develop such a protocol and to oversee the studies leading up to a replacement for the ISBT. The *Ad hoc* Group met in November 2015 and made the following recommendations.

- The current ISBT should be used sparingly as a primary reference material. Manufacturers should be encouraged to produce their own internal reference standards calibrated against the ISBT.

- A new ISBT should be evaluated and calibrated through an international collaborative study, and then endorsed by the OIE Biological Standards Commission.
- Members of the *Ad hoc* Group should oversee the implementation of this study.
- A standardised panel of sensitising agents and defined protocols for potency assays should be produced and used for the collaborative international study.
- The section of the *Terrestrial Manual* dealing with the manufacture of tuberculin should be reviewed and updated where necessary.
- The AN5 strain of *M. bovis* used to produce tuberculin and for sensitisation in potency assays should be traceable to its original source, and should be sequenced.
- Studies to replace the use of live animals with *in vitro* assays for future tuberculin standardisation should be encouraged.

Guideline 3.6.6. of the *Terrestrial Manual* defines international reference standards ('primary standards') as highly characterised, containing defined concentrations of analyte, and being prepared and held by international Reference Laboratories. They are the reagents to which all assays and/or other reference materials should be standardised. National reference standards are calibrated by comparison with an international standard reagent whenever possible. However, the wording of the guideline implies that the laboratory assay which is calibrated by the reference standard is measuring some analyte (typically antibody) in the test sample, and that the reference standard has a designated concentration of that analyte (or a surrogate for concentration, such as titre). In contrast, Bo-PPD is a protein derivative containing antigens precipitated from *M. bovis* cultures and the diagnostic test in question measures the animal's immune response to those antigens, not the concentration of analyte in any specimen. The purpose of the ISBT is thus to define the concentration (and by implication the potency) of Bo-PPD in the working product.

With the strengthening of the OIE in recent years, and the strong focus by WHO on human

diseases (including 'One Health' issues), it has been agreed that any new ISBT should be evaluated and calibrated by the OIE Reference Laboratories, and then adopted by the OIE World Assembly. WHO will be kept informed through the participation in the collaborative international study of their laboratory for international biological standards (NIBSC).

The protocol to develop a new reference standard

Because of the nature of the product, it will be necessary to carry out animal studies in cattle and guinea pigs, which has significant cost implications, as well as an extended timescale. Ethical issues related to the 3Rs should also be considered. It should be borne in mind that tuberculin (the working product, not the international standard) needs a product licence/marketing authorisation in the countries where it is used. The standard, therefore, must be designed with the requirements of regulators in mind.

The *Ad hoc* Group suggested that the OIE invite various tuberculin manufacturers to donate a batch of Bo-PPD as a candidate replacement ISBT. Each batch should be enough to last for about 20 years if selected as the replacement ISBT, i.e. approximately 5,000 ampoules after freeze drying. The candidate batches will be supplied as bulk wet stock for initial evaluation, including potency and specificity. Specificity measurements will be made in guinea pigs sensitised with *M. avium*. Two batches will be selected for further evaluation in the international collaborative study. Detailed selection criteria are being developed; in particular, that the potency of candidate batches should be as close as possible to that of the existing ISBT (32,500 International Units per mg, as estimated in guinea pigs). Potency estimates should follow the procedures in the *Terrestrial Manual*, including the use of Latin square distribution for the allocation of inoculation sites in guinea pigs. The international collaborative study for the selected candidate batches should include potency measurements in sensitised guinea pigs and, wherever possible, cattle. There are likely



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to be only a few laboratories that can undertake the latter, some using naturally infected reactor cattle, and others by experimental infection under appropriate containment conditions. Because of the known variability of the potency test, it will be necessary to compare the results observed in guinea pigs sensitised with live and with heat-killed *M. bovis* AN5, together with the results obtained in experimentally infected and reactor cattle.

Conclusions

With the diminishing stock of the current ISBT, it is essential that a replacement is developed as soon as possible, to maintain continuity in the quality of production batches of bovine tuberculin. Even with best endeavours and robust funding for the work, this may take up to five years. Given the continuing importance of bovine tuberculosis globally, and the need for reliable diagnostic tests, every effort should be made to move this study forward on an international basis, and while keeping all relevant stakeholders fully informed.

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OIE Reference Laboratories for bovine tuberculosis

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Equine influenza vaccine composition

Conclusions and recommendations of the OIE Expert Surveillance Panel on Equine Influenza Vaccine Composition Meeting held at OIE Headquarters, Paris, on 1 March 2016



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Equine influenza activity in 2015

During 2015, individual animal cases and outbreaks of equine influenza were reported by the People's Republic of China (P.R. China), France, Germany, Ireland, Malaysia, Sweden, the United Kingdom (UK) and the United States of America (USA).

Sources of equine influenza viruses characterised

Equine influenza A (H3N8) viruses were isolated and/or characterised from outbreaks in P.R. China, France, Ireland, Malaysia, Sweden, the UK and the USA.

Field data

There was increased influenza activity in the USA in 2015 with

outbreaks detected on 46 premises in 23 states. No vaccination data were available.

In Europe, equine influenza virus infections were confirmed in both vaccinated and unvaccinated horses. The majority of the clinically affected horses were unvaccinated or of unknown/lapsed vaccination history. However, vaccination breakdown was recorded in a small number of horses in several countries.

In Asia, equine influenza outbreaks were reported in three provinces in P.R. China. In Malaysia, an outbreak of equine influenza led to the cancellation of racing and other activities related to horses for one month, including their importation. The index cases were imported horses that were vaccinated against equine

influenza on the day of their departure from the import quarantine facility to various turf clubs, and started showing mild respiratory signs upon arrival at the turf clubs in the states of Selangor and Perak. With the exception of imported horses, racehorses and other local horses in Malaysia are not vaccinated against equine influenza.

Characterisation of viruses identified in 2015

Viruses isolated/identified from outbreaks in P.R. China, France, Ireland, Malaysia, Sweden, the UK and the USA were genetically characterised by sequencing the haemagglutinin (HA) and the neuraminidase (NA) genes.



Viruses isolated in Ireland, the UK and the USA were also characterised antigenically by the haemagglutination inhibition (HI) assay, using post-infection ferret antisera and chicken red blood cells.

Genetic characterisation

All HA sequences obtained from viruses were of the American lineage (Florida sublineage). The viruses detected in the USA and Malaysia in 2015 were characterised as clade 1 viruses and were very similar. Viruses detected in P.R. China, France, Ireland, Sweden and the UK were characterised as clade 2 viruses.

Three subpopulations of clade 2 viruses have been identified, two circulating in Europe and one in Asia. Compared to the Florida clade 2 reference strain, the viruses identified in 2015 in Ireland and the UK had the substitution A144V, in contrast to the viruses identified in France and Sweden, which had the substitution I179V. These changes were first identified in 2011. The

viruses identified in P.R. China in 2015 were distinguishable from those circulating in Europe by the substitution A144T; these were similar to those identified in Mongolia in 2011.

The NA gene sequences of viruses from clade 1 and clade 2 were clearly distinguishable as were, to a lesser extent, the sequences of viruses from the three subpopulations of clade 2.

Representative sequences for HA and NA are available on GenBank and the Global Initiative on Sharing All Influenza Data (GISAID).

Antigenic characterisation

Haemagglutination inhibition data available for viruses isolated in 2015, and antigenic cartography analyses thereof, show that the two clades of the Florida sublineage continue to co-circulate and evolve but currently remain closely related antigenically to the recommended vaccine viruses of that lineage.

Conclusions

No viruses belonging to the Eurasian sublineage were detected in 2015. Viruses isolated and characterised were from clades 1 and 2 of the Florida sublineage. Clade 2 viruses were associated with vaccination breakdown.

Level of surveillance and updating of vaccines

The OIE Expert Surveillance Panel on Equine Influenza Vaccine Composition continues to emphasise the importance of increased surveillance and investigation of vaccination breakdown in different countries. Increased surveillance in Asia has been facilitated by the OIE Laboratory Twinning Programme. The rapid submission of viruses to reference laboratories is essential if antigenic and genetic drift is to be monitored effectively on a global basis.

Although some vaccines have been updated to include a virus from clade 2, in accordance with the recommendations of 2010 to 2015, the majority of the current vaccines contain outdated strains. Updating vaccines with epidemiologically relevant viruses is necessary for optimum protection.





Recommendations (March 2016)

These are unchanged from those made each year since 2010.

It is not necessary to include an H7N7 virus or an H3N8 virus of the Eurasian lineage in vaccines as these viruses have not been detected in the course of the most recent surveillance and are therefore presumed not to be circulating.

Vaccines should contain both clade 1 and clade 2 viruses of the Florida sublineage:

- clade 1 continues to be represented by A/eq/South Africa/04/2003-like or A/eq/Ohio/2003-like viruses but more recent clade 1 viruses are available from the OIE Reference Laboratories
- clade 2 continues to be represented by A/eq/Richmond/1/2007-like viruses but more recent clade 2 viruses are available from the OIE Reference Laboratories.

Manufacturers producing vaccines for a strictly national market are encouraged to liaise with reference laboratories. The selected viruses should induce responses that are immunogenically relevant to the equine influenza viruses circulating nationally. A sequence determination of both HAs and NAs should be completed before use.

Reference reagents

Freeze-dried post-infection equine antisera to A/eq/Newmarket/1/93 (American lineage H3N8) and A/eq/South Africa/4/2003 (Florida clade 1, sublineage of the American lineage) are available from the European Directorate for the Quality of Medicines (EDQM). These sera have been assigned single radial haemolysis (SRH) values through an international collaborative study and can be used as primary reference sera for the assay. The OIE Expert Surveillance Panel welcomes the decision by the OIE Biological Standards Commission to agree the proposal for an OIE/EDQM collaborative study to produce a new standard antiserum against the reference strain A/eq/Richmond/1/2007, representative of Florida clade 2.

Recent virus strains, including suitable vaccine candidates for clades 1 and 2, are available from the OIE Reference Laboratories. In the event that an OIE Reference Laboratory cannot supply suitable vaccine candidates for both clades, they will assist the vaccine company to source the viruses from an alternative OIE Reference Laboratory.

Small quantities of ferret antisera for antigenic characterisation are available from the OIE Reference Laboratories in Ireland and the UK.

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OIE Reference Laboratories for equine influenza

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news from Member Countries

Self-declarations

Other than for African horse sickness, bovine spongiform encephalopathy, classical swine fever, contagious bovine pleuropneumonia, foot and mouth disease and peste des petits ruminants, for which the OIE currently has a procedure of official recognition of status, the self-declaration of freedom of a country or a territory from a given OIE-listed disease is under the responsibility of the Member concerned. The OIE is not responsible for inaccuracies in the publication of self-declarations concerning the status of a country or zone with regard to a disease.

Self-declaration of a temporary equine-disease-free zone (EDFZ) by Brazil for the Rio 2016 Olympic and Paralympic Games

Self-declaration sent to the OIE on 26 November 2015 by Dr Guilherme Henrique Figueiredo Marques, Delegate of Brazil to the OIE, Director, Animal Health Department (DSA), Ministry of Agriculture, Livestock and Supply (MAPA), Brasilia

Background

The city of Rio de Janeiro will host the Rio 2016 Olympic and Paralympic Games from 5 to 21 August and from 7 to 18 September 2016, respectively.

To facilitate the international participation of competition horses in equestrian events, the OIE, during its November 2014 visit to Brazil, advised Brazil's official Veterinary Services to apply the principles of the concept of a high-health equine subpopulation, as set out in Chapter 4.16., 'High health status horse subpopulation', of the *Terrestrial Animal Health Code* (the *Terrestrial Code*). Brazil was also advised to apply the equine-disease-free zone (EDFZ) principles to the Olympic Equestrian Centre (EQC), where the equestrian competitions will be held, to establish a temporary equine disease-free zone.

In 2015, Brazil set out its health requirements for temporary imports of horses to compete in the Olympic Games. These official standards comply with the concept of high-health, high-performance (HHP) horses. Brazil also established a temporary EDFZ in the EQC, delineating a high-surveillance zone around the EDFZ, including all adjoining establishments that hold horses or have any epidemiological link with the EDFZ, and a biosecurity corridor that extends from the EQC to the Antônio Carlos Jobim International Airport (Galeão) (AIRJ), including the road connecting them.

This temporary EDFZ adheres to the OIE recommendations for EDFZs, in addition to the zoning and compartmentalisation principles described in Chapters 4.3. and 4.4. of the *Terrestrial Code*.



EDFZ – Aims, boundaries, health and biosecurity conditions

Brazil's self-declaration of the EDFZ to the OIE aims to demonstrate the biosecurity features and conditions of the EQC and its surroundings to OIE Member Countries and competing countries sending horses to the Games. It also describes the veterinary services provided in these centres, and Rio de Janeiro State's current sanitary status for notifiable diseases. The EDFZ self-declaration, which safeguards the health of all animals (imported or domestic), is backed up by the official legal framework that forms the basis of Brazil's commitment to guaranteeing the fulfilment of

health and biosecurity measures, including those related to horses competing in the Games.

The equestrian events will be held inside the EDFZ, indicated with a red label in Figure 1. The EDFZ is inside the Deodoro Military Complex and has been identified as the EQC by the Games' Organisers. Its roads, structures and geographical features are identified and delineated in Figure 2.

On 8 April 2015, under the supervision of the Veterinary Services, all 139 animals housed in the EQC were transferred to other premises in the Deodoro Military Complex known as 'Sector 4'. The depopulation operation prescribed by the Veterinary Services was implemented in the EDFZ on 8 April



Fig. 1
EDFZ boundaries
(see red label)



Fig. 2

Urban thoroughfares enclosing the EDFZ

1. Rua Salustiano Silva; 2. Via Trans Olímpica; 3. Military Police Academy of Rio de Janeiro State; 4. Aeronautics (Campo dos Afonsos); 5. Parachute Brigade; 6. Escola de Aperfeiçoamento de Oficiais (EsAO); 7. Vila Militar Barracks; 8. Avenida Duque de Caxias; 9. Rio Maranga



Fig. 3
Demarcation of biosecurity corridor between the Olympic Equestrian Centre and Antônio Carlos Jobim International Airport

2015 and will remain in force until the end of the Paralympics in September 2016. Thus a 16-month depopulation period will last until the Olympic Games start in August 2016. Before the resident horses were evacuated from the EDFZ, they were regularly subjected to laboratory tests for glanders and equine infectious anaemia (EIA) in line with Brazil's official equine transit regulations. These animals, under strict military control and constant veterinary supervision and clinical inspection by Army technical staff, were also subject to a strict vaccination protocol, on a half-yearly or annual basis, depending on the immunogen, and were vaccinated against equine influenza, tetanus, rabies, encephalomyelitis, leptospirosis and strangles (*Streptococcus equi*). A routine preventive internal and external parasite treatment was also in place.

The Veterinary Services assessed and approved the Biosecurity Plan presented by the Organising Committee of the Games as complying with the International Equestrian Federation's (FEI) Biosecurity Manual, which stipulates measures to minimise the risk of diseases in horses. The Plan includes a detailed description of the entire perimeter enclosure; control of animal and human entry, exit and transit; the availability of trained personnel; access and movements of personnel; stable and installation cleaning and disinfecting procedures; horse-box cleaning procedures; surveillance for arthropod vectors, pests and invasive animals (such as dogs,

cats and pigeons); the animal isolation unit; veterinary care; stable safety and management; veterinary care in the stables and restrictions on the entry of other animals, with the exception of guide dogs and tracker dogs.

The enclosure conditions are regularly checked to enforce strict controls on roaming dogs and other invasive animals from neighbouring localities that could pose a risk of disseminating disease.

Biosecurity corridor – Biosecurity boundaries and conditions

A biosecurity corridor of approximately 28km in length has been set up between the EQC and AIRJ to bolster official controls of the EDFZ, as illustrated in Figure 3.

There are no registered clusters of horses near the roads along the route designated for animal movements between the AIRJ and EDFZ, as the area is residential and entirely built up.

Biosecurity measures have been set up for animal disembarkation and admission into the EDFZ, to be applied in the AIRJ and also during transit, such as clinical check-ups of the animals on board the aircraft, clinical inspection of the animals on disembarkation, disinfection of the landing ramp and horse boxes and a Games Committee biosecurity team accompanying the animals, with an ambulance and public security escort team throughout the journey.

High-surveillance zone –

Boundaries and active surveillance study

All installations with clusters of horses and records of horse movements in the Deodoro Military Complex have been identified and subjected to active surveillance (clinical inspection, diagnostic tests) for the main notifiable equine diseases, as shown in Figure 4.

The study was terminated when at least two negative results had been obtained in the diagnostic tests for glanders for each animal. In addition, all the animals were guaranteed clinically healthy through daily clinical inspections.

In July 2015 the Veterinary Services applied the above protocols to conduct an active surveillance study of the main notifiable equine

The following protocol and guidelines were developed for the surveillance system in force:

- a)** a total ban on the entry and exit of animals for any reason whatsoever, from all units that hold horses, into and from the Deodoro Military Complex until total completion of the clean-up and seroepidemiological process;
- b)** characterisation of the region; daily clinical surveillance inspections for the main notifiable infectious and contagious equine diseases, including equine infectious anaemia, Eastern and Western equine encephalomyelitis, vesicular stomatitis, glanders, equine piroplasmosis, rabies and equine influenza; and identification of all animals in all facilities involved;
- c)** use of three sequential tests, including a complement fixation test and a Western Blot, in Sector 4 animals (affected establishment), and an agar gel immunodiffusion (AGID) test for EIA. The Western Blot test was carried out by the OIE Reference Laboratory for Glanders, the Friedrich-Loeffler Institute, Germany;
- d)** in the other facilities involved in the study, a complement fixation test and a Western Blot test were sequentially adopted for diagnosing glanders and the entire population was submitted to an AGID test for EIA.

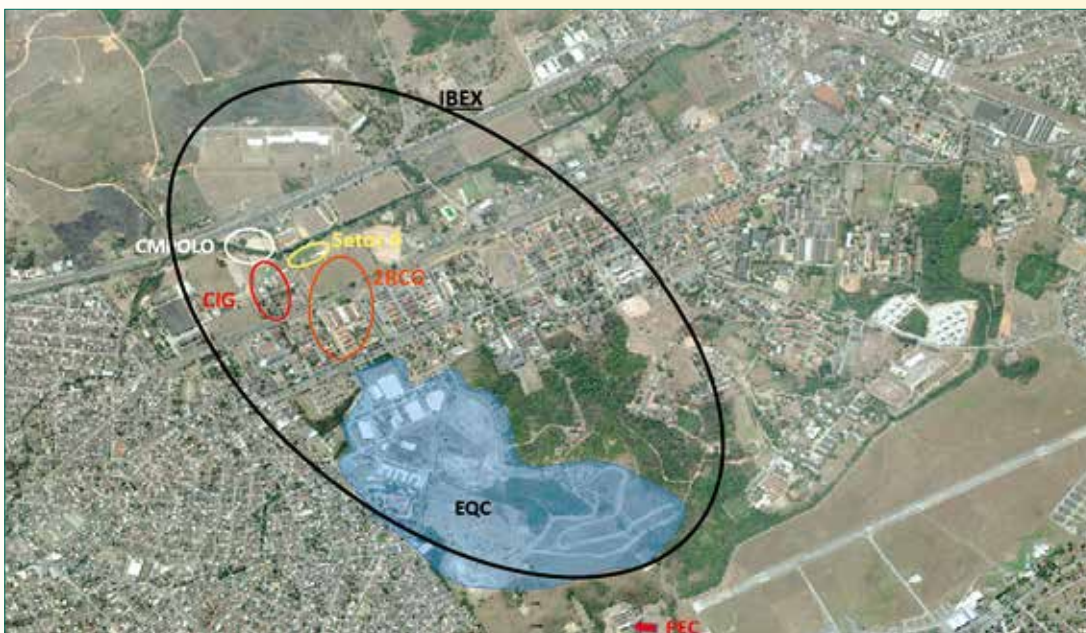


Fig. 4

Horse clusters in the Deodoro Military Complex

EQC/EDFZ (depopulated); Sector 4 (139 animals); 2RCG/2nd Cavalry Regiment School (170 animals); CIG/Gericinó Training Centre (73 animals); and CMPOLO/Military Circle of Polo (67 animals)

diseases in the facilities identified in Figure 4, based on daily clinical inspections of the animals, backed up by laboratory examinations for EIA and glanders.

The study also extended to the platoon of the RJ Military Police Cavalry School (PEC), because of its geographical proximity to the equine event area (adjoining the Complex perimeter) and because it has 89 horses, in addition to an establishment in another RJ district, the São Cristóvão Equestrian Centre, which has 46 animals, because of the recurring transit link between this establishment and the 2nd Cavalry Regiment School. The study initially covered a total of 584 horses.

The study was conducted as the result of an epidemiological link investigation with an outbreak of glanders in another Brazilian state, Espírito Santo, whose outcome proved that one of the animals considered as a confirmed case of the disease had

been stabled in the Deodoro Military Complex from February to November 2014 while it was affected. This link triggered immediate investigations in the Sector 4 establishment of the Deodoro Military Complex, including clinical and epidemiological assessment and sampling, and complement fixation tests were conducted in the whole horse population housed in that sector. Following this, a positive result was achieved on 30 June 2015 from additional Immunoblotting – Western Blotting tests.

It was decided that other guideline measures would be enforced, such as prohibiting the entry of all animals to any of the Deodoro Military Complex installations that hold horses, and daily clinical inspection of all animals, and that the study would only be terminated when at least two consecutive negative results had been obtained in

Table I
Equine diseases present in Rio de Janeiro State

Number of cases in Rio de Janeiro State, by disease and year							
Disease	2010	2011	2012	2013	2014	2015	2016 *
Equine infectious anaemia	261	221	279	178	158	119	26
Eastern equine encephalomyelitis	0	0	3	0	0	0	0
Vesicular stomatitis	0	0	0	6	0	0	0
Glanders	0	0	2	0	0	2	0
Equine piroplasmiasis	1	1	0	35	2	8	1
Rabies	15	12	12	7	6	2	0
Equine influenza	Disease present in the country, no quantitative data available, with vaccination						

* January to April 2016

Table II
Equine diseases absent or never reported in Brazil

Equine diseases absent or never reported in Brazil	
Disease	Last case
Equine viral arteritis	Absent
Dourine	Absent
Western equine encephalomyelitis	07/2007 ¹
Venezuelan equine encephalomyelitis	Absent
Contagious equine metritis	Absent
African horse sickness	Absent
Surra	03/2012 ²

1. case in Paraná State

2. case in Pará State



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the diagnostic tests for glanders and the test for EIA for all of the animals in the Complex.

During the course of the study, a second animal was identified in the first sampling batch of Sector 4, which showed no signs of glanders but tested positive to Western Blot. This animal was immediately culled and autopsied to enhance the investigation. All the animals tested negative to the AGID test for EIA, with official results released by the MAPA, LANAGRO/MG Federal Laboratory on 3 August 2015.

No animals were observed with clinical signs compatible with notifiable infectious or contagious diseases.

The last area was cleared in October 2015, as it only housed animals that had tested negative consecutively in the two serological tests for glanders and complied with the various strict nationwide transit regulations. A total of 1,216 laboratory examinations were conducted for glanders.

Since then, the entire horse population in the area considered free of equine diseases has been continuously under veterinary supervision, for the purpose of early identification of any clinical sign of any notifiable equine disease. So far no animal has presented such clinical signs. The notifiable diseases and the notification protocol are described in MAPA Normative Instruction No. 50 of 24 September 2013.

Health status of Rio de Janeiro State with regard to equine diseases

Tables I and II illustrate the health status of Rio de Janeiro (RJ) State for the main notifiable equine diseases during the last six years, as well as for absent and never-reported diseases in Brazil.

Conclusion

In view of the epidemiological surveillance described above, the results and maintenance of biosecurity conditions in the Olympic Equestrian Centre (central zone of the EDFZ) and the high-surveillance zone, combined with the strict equine movement rules in the Deodoro Military Complex and the current depopulation of the Olympic Equestrian Centre, the Federative Republic of Brazil declares the area comprising the Olympic Equestrian Centre and its adjacent areas as a temporary Equine Disease-Free Zone, for hosting all the equestrian events of the Rio 2016 Olympic and Paralympic Games.

BRAZIL



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Self-declaration by New Caledonia of freedom from infectious hypodermal and haematopoietic necrosis

in accordance with article 9.3.4. of the *Aquatic Animal Health Code*, 2015 edition

On 16 February 2016 New Caledonia's Delegate to the OIE, Dr Christian Desoutter, submitted to the OIE a self-declaration of freedom from infectious hypodermal and haematopoietic necrosis (IHHN) in all parts of New Caledonia and has presented the following document¹ demonstrating compliance with the conditions required by the *Aquatic Animal Health Code*, 2015 edition (*Aquatic Code*) and by the *Manual of Diagnostic Tests for Aquatic Animals*, 2015 edition (*Aquatic Manual*).

- Given its geography (archipelago) and localisation, New Caledonia does not share any border zones with other countries.
- New Caledonia fulfils the conditions defined in point 3 of the *Aquatic Code* Article 9.3.4., namely: a country where the basic biosecurity conditions have been continuously met for at least the last two years, and targeted surveillance, as described in Chapter 1.4., has been in place for at least the last two years without detection of IHHN.

Shrimp farming in New Caledonia:

As of 2015, there are 21 shrimp farms (19 in production), 5 hatcheries, 2 packaging plants, and 2 feed plants in New Caledonia. On average, 1,600 tons of shrimp are produced, more than half of which are exported. The exotic species *Litopenaeus stylirostris* is raised exclusively.

There are also about a dozen wild penaeid species in New Caledonia, notably species

such as *Penaeus monodon* that according to the *Aquatic Code* are susceptible to IHHN

Basic biosecurity conditions: The conditions applicable to IHHN designed to ensure an adequate level of health safety are met.

Mandatory notification: In compliance with current regulations, the presence or suspected presence of IHHN must be notified to the Veterinary Authorities (SIVAP²).

1. Full details available upon request

2. SIVAP: *Service d'inspection vétérinaire alimentaire et phytosanitaire* (Food Animal and Plant Health Inspection Service)



The **early detection** system:

- Technical and clinical surveillance of farms and hatcheries was performed between 1993 and 2002 by Ifremer³ and DAVAR⁴ (LNC⁵ and SIVAP) in partnership with UAZ-APL⁶ (OIE Reference Laboratory for IHHN).
- Between 2002 and 2006, DAVAR performed targeted surveillance of diseases notifiable to the OIE.
- Since 2006, all reports of disease outbreaks and mortality in shrimps have been investigated by the epidemiological surveillance network (REC⁷) to verify freedom from diseases on the OIE List (Fig 1). If no outbreak is reported, all farms and hatcheries are visited and samples taken at least once a year (Fig. 2).
- Surveys of wild shrimp were conducted in 2006, 2009, 2011, and 2013.

Importation conditions for products with a health risk

Importation regulations have been set to prevent the introduction of crustacean diseases. The ministerial decree No. 2014-333/GNC of 13 February 2014 concerning importation conditions for products with a health risk prohibits the importation of live or raw shrimp.

Importation measures have been in place since 2006. A single importation of live shrimps destined for aquaculture was authorized in 2004 by a governmental decision for the importation from Hawaii of specific pathogen-free stock.

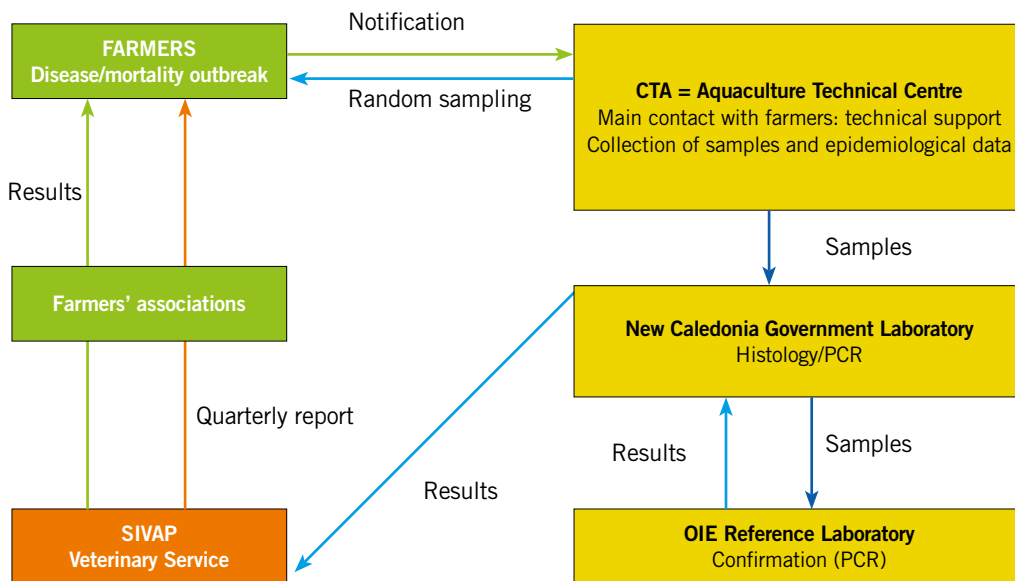


Fig. 1
Diagram of the Shrimp Epidemiological Surveillance Network (REC), whose information is supplied by the Aquaculture Technical Centre (CTA) of the New Caledonia Economic Development Agency (ADECAL)

3. Ifremer: Institut français de recherche pour l'exploitation de la mer (French Research Institute for Exploitation of the Sea)
 4. DAVAR: Direction des affaires vétérinaires, alimentaires et rurales (New Caledonia Direction of Veterinary, Food and Rural Affairs)
 5. LNC: Service des laboratoires officiels vétérinaires, agroalimentaires et phytosanitaires de la Nouvelle-Calédonie (New Caledonia Veterinary, Food and Plant Laboratory Service)
 6. UAZ-APL: Aquaculture Pathology Laboratory, School of Animal and Comparative Biomedical Sciences, University of Arizona
 7. REC : Réseau d'épidémiologie crevettes

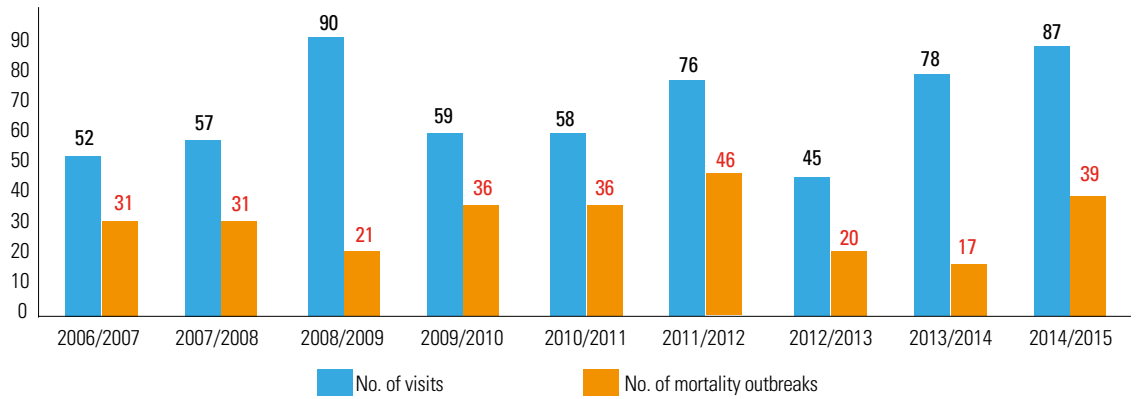


Fig. 2
The Shrimp Epidemiological Surveillance Network performs an average of 70 visits per year in farms and hatcheries

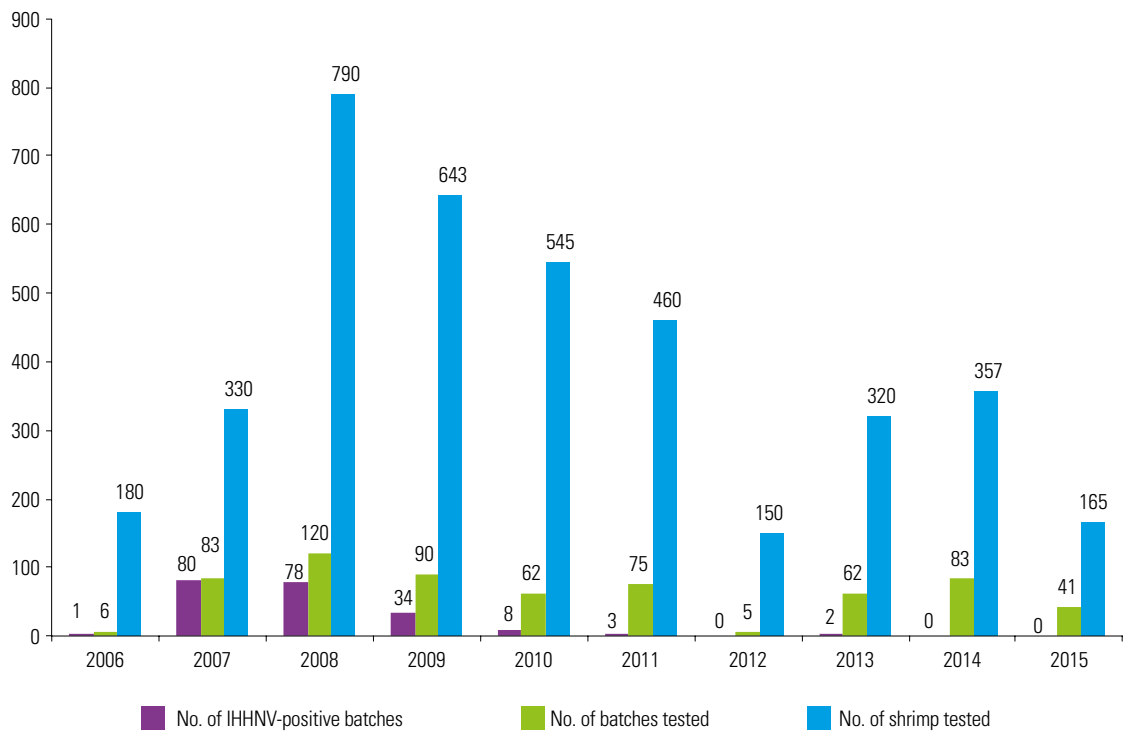


Fig. 3
Targeted surveillance for infectious hypodermal and haematopoietic necrosis





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Surveillance of crustacean diseases: results

More than 2,000 samples are tested every year:

- The histology study (described by Lightner 1996⁸) is performed by the LNC to search for diseases on the OIE List.
- The LNC uses PCR to detect IHHN (applying the method of Tang & Lightner 2001⁹ recommended by the *Aquatic Manual* [Chapter 2.2.2]); before 2012, this operation was subcontracted to UAZ-APL (OIE Reference Laboratory).
- PCR detection studies for necrotising hepatopancreatitis, Taura syndrome, white spot disease, and yellow head disease are subcontracted to UAZ-APL (OIE Reference Laboratory).

Targeted surveillance of infectious hypodermal and haematopoietic necrosis (Fig. 3)

- No outbreak or suspected clinical manifestation of IHHN has been reported since 2010 in the farms and hatcheries.
- Since August 2013, 145 samples (totalling more than 1,000 shrimps) were tested with PCR by LNC or UAZ-APL; all tests were negative for IHHN.
- UAZ-APL used PCR to test for IHHN in different wild shrimp species in 2006, 2009, and 2011; all results were negative, as were the results of the specific survey of *Penaeus merguensis* in 2013.

8. Lightner D.V. (1996) – A handbook of shrimp pathology and diagnostic procedures for diseases of cultured penaeid shrimp. World Aquaculture Society, Baton Rouge, Louisiana, USA

9. Tang K.F.J. & Lightner D.V. (2001) – Detection and quantification of infectious hypodermal and hematopoietic necrosis virus in penaeid shrimp by real-time PCR. *Dis. Aquat. Org.* **44**, 79-85. doi:10.3354/dao044079



Self-declaration by Germany on regaining freedom from avian influenza

submitted to the OIE on 2 May 2016 by Dr Karin Schwabenbauer, Delegate of Germany to the OIE and Chief Veterinary Officer, Directorate of Animal Health and Animal Welfare, Ministry of Food and Agriculture, Bonn

The following occurrences of avian influenza had been recorded in Germany from November 2014 to December 2015:

No.	Date of disease confirmation	Virus characterisation*	Location		Description of flock	Date		
			Federal state (Land)	Rural district (Landkreis)		Stamping out	Completion of cleaning and disinfection of premises	Resolved
1	5 Nov. 2014	HPAI H5N8	Mecklenburg-Western Pomerania	Western Pomerania-Greifswald	Commercial turkey flock of 30,939 birds	Done, by 6 Nov. 2014	10 Nov. 2014	10 Dec. 2014
2	16 Dec. 2014	HPAI H5N8	Lower Saxony	Cloppenburg	Commercial turkey flock of 17,887 birds	Done, by 16 Dec. 2014	18 Dec. 2014	17 Jan. 2015
3	20 Dec. 2014	HPAI H5N8	Lower Saxony	Emsland	Commercial duck flock of 10,102 birds	Done, by 20 Dec. 2014	23 Dec. 2014	23 Jan. 2015
4	7 Jan. 2015	HPAI H5N8	Mecklenburg-Western Pomerania	City of Rostock	Zoo with 496 birds	57 birds culled and disposed of on 8 Jan. 2015	10 Jan. 2015	24 Feb. 2015
5	20 Jan. 2015	HPAI H5N8	Mecklenburg-Western Pomerania	Western Pomerania-Greifswald	Zoo with 98 birds	50 birds culled and disposed of on 21 Jan. 2015	23 Jan. 2015	5 March 2015
6	26 Jan. 2015	HPAI H5N8	Mecklenburg-Western Pomerania	Western Pomerania-Greifswald	Private 'backyard' flock with 36 birds	Done, by 24 Jan. 2015	27 Jan. 2015	5 March 2015
7	3 March 2015	LPAI H7N7	Lower Saxony	Cuxhaven	Commercial turkey flock of 23,500 birds	Done, by 3 March 2015	4 March 2015	17 April 2015
8	11 June 2015	LPAI H7N7	Lower Saxony	Emsland	Laying hen flock of 36,100 birds	Done, by 11 June 2015	16 June 2015	14 July 2015
9	26 July 2015	HPAI H7N7	Lower Saxony	Emsland	Laying hen	Done, by 26 July 2015	29 July 2015	3 Sept. 2015
10	7 Dec. 2015	LPAI H5N2	Bavaria	Cham	Flock with 9,500 laying hens, 2,000 ducks, 100 turkeys, 1,500 geese	Done, by 7 Dec. 2015	22 Dec. 2015	13 Jan. 2016

* HPAI: highly pathogenic avian influenza; LPAI: low-pathogenicity avian influenza

All poultry in the flocks were culled and safely disposed of. In the zoos in Rostock and Anklam, Western Pomerania, only the birds in the units concerned were culled.

Restricted zones were established and comprehensive epidemiological tests, as well as cleaning and disinfection measures, were conducted.

In the flock affected most recently (No. 10 in the table above), the competent Veterinary Authority

approved the cleaning and disinfection process on 22 December 2015, and the restrictions applying to this farm under EU legislation were lifted with effect from 13 January 2016. The final report was entered into the World Animal Health Information System (WAHIS) on 23 March 2016.

Since 7 December 2015, no further cases of avian influenza in domestic poultry have occurred.

Therefore,

- considering the above-mentioned information,
- considering that more than three months have elapsed since stamping-out and disinfection were applied to the last outbreak (stamping-out of the last outbreak was carried out on 7 December 2015 and disinfection of all the affected premises was completed on 22 December 2015), and
- in accordance with Article 10.4.3. of the *Terrestrial Animal Health Code* (2015),

the Delegate of Germany declares that the country has regained its freedom from avian influenza in domestic poultry with effect from 23 March 2016.



Self-declaration by Slovenia of freedom from rabies

submitted to the OIE on 23 May 2016 by Dr Janez Posedi, Delegate of Slovenia to the OIE and Director General of the Administration of the Republic of Slovenia for Food Safety, the Veterinary Sector and Plant Protection (AFSVSPP), Ministry of Agriculture, Forestry and Food, Ljubljana

Notification of rabies

Rabies is a compulsory notifiable disease according to national legislation in Slovenia:

- Veterinary Compliance Criteria Act (ZVMS) (Official Journal of the Republic of Slovenia [OJ], No. 93/05 dated 21 October 2005)
- Law amending and supplementing certain laws in the field of food safety, veterinary and plant health (ZdZPVHVVR) (OJ No. 90/12 dated 30 November 2012)
- Law amending the law on the protection of animals (ZZZiv-C) (OJ No. 23/13 dated 18 March 2013)
- Law amending the law on inspection (ZIN-B) (OJ No. 40/14 dated 3 June 2014).

Any suspicion or occurrence of rabies shall immediately be reported to the Competent Authority, with no delay, and it must be ensured that the disease is confirmed or the suspicion overruled.

The owner of the animal is obliged to immediately communicate to the appropriate Veterinary Organisation, which holds the concession (and is contracted to the Competent Authority), any suspected cases or signs of disease indicating that the animal became ill or died from rabies.

History and epidemiological evolution of the disease

Dog-mediated rabies was eradicated soon after World War II, when compulsory vaccination of dogs against rabies was introduced (1947). Since then, vaccination of dogs against rabies has been mandatory.

The last case of human rabies in Slovenia was confirmed in 1950.

Wildlife-mediated rabies was first detected in 1973, in the north-eastern part of Slovenia. For several years, the disease was limited to this territory. In 1979, wildlife-mediated rabies was also detected in the northern part of Slovenia, from where it spread throughout the country, and the disease has persisted until recent years.

Owing to a very unfavourable epizootiological situation in regard to rabies in the 1980s, with a peak number of 1,851 cases in the year 1981 (Fig. 1), the Veterinary Administration decided to implement oral rabies vaccination (ORV) of foxes in 1988.

During the period from 1980 to 1988, the majority of cases were detected in the

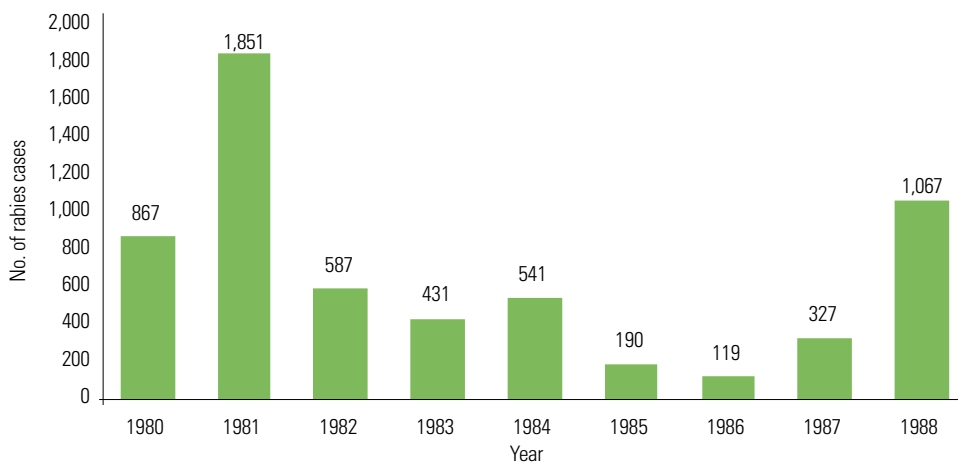


Fig. 1
Rabies cases in Slovenia (1980–1988)

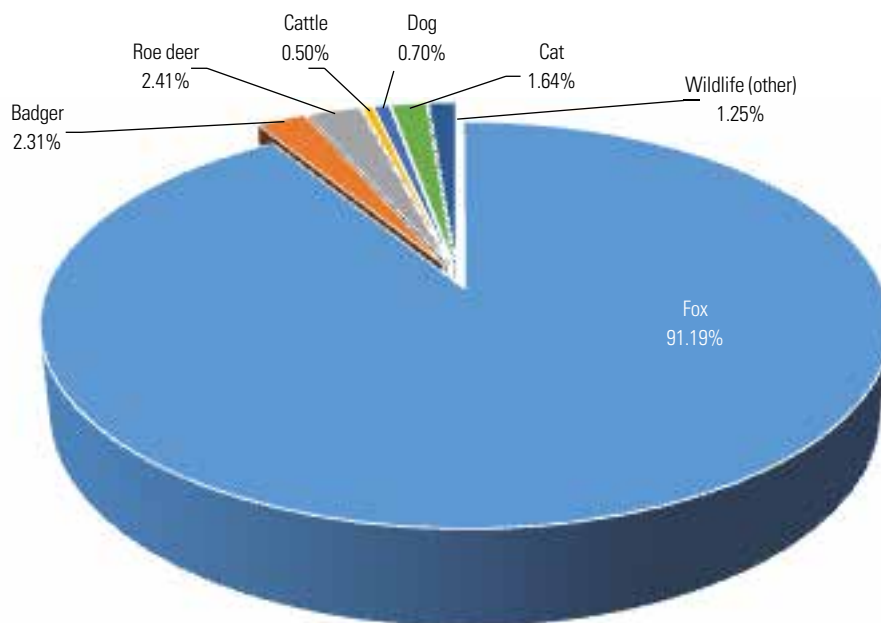


Fig. 2
Species breakdown of rabies cases in Slovenia (1980–1988)

red fox (*Vulpes vulpes*) population, which was the main reservoir of rabies in Slovenia (91% of all cases) (Fig. 2).

In the period from 1988 to 1994, a manual distribution of rabies vaccine baits was conducted (Tübingen model with the SAD strain). Two vaccination campaigns were conducted in spring and autumn. However, in 1995, the number of rabies cases was even higher than seven years before, when the manual distribution of rabies vaccine baits started (Fig. 3).

In 1995, a new strategy to combat rabies was implemented. The aircraft distribution of rabies vaccine baits began and has been in place since then. As a result of the new strategy, the number of rabies cases significantly decreased. Nevertheless, individual cases were detected in the areas along the southern and eastern borders, due to the fact that no ORV campaign took place there until 2011. Since then, only three rabies cases were detected in 2012, all in red foxes, and one case in January 2013, also in a red fox. The

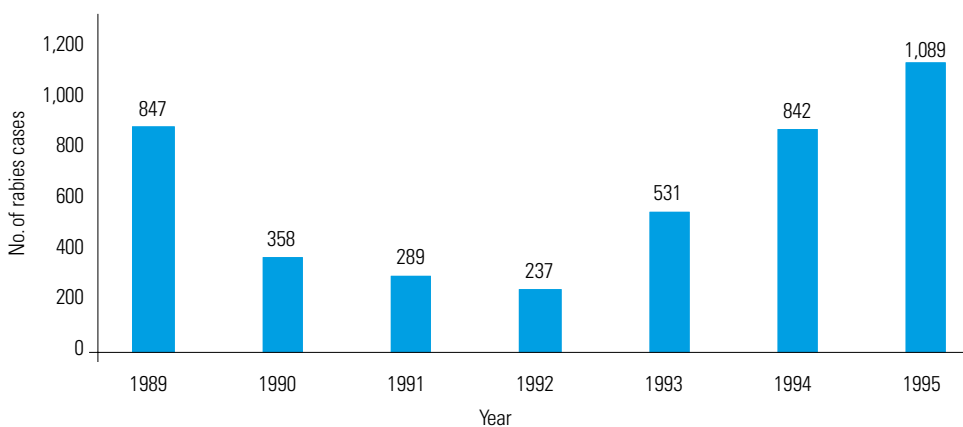


Fig. 3
Rabies cases in Slovenia (1989–1995)

latter was the last diagnosed indigenous rabies case in Slovenia (Fig. 4).

Eradication measures in domestic animals

Compulsory vaccination of all dogs started in Slovenia in 1947. Together with the implementation of strict measures to manage the stray dog population, it resulted in the elimination of dog-mediated rabies in 1954. Ever since, canine vaccination has remained compulsory. Depending on the epizootiological situation, the vaccination of other domestic animals (e.g. grazing cattle) was made obligatory in high-risk areas.

Identification and registration of all dogs in Slovenia is compulsory. All dogs must be marked with a microchip and equipped with a passport. The relevant information about dogs, owners and anti-rabies vaccination is included in a database, the Central Register of Dogs, which is kept and maintained by the Administration for Food Safety, the Veterinary Sector and Plant Protection (*Uprava RS za varno hrano, veterinarstvo in varstvo rastlin – UVHVVR*).

Eradication measures in the wildlife population

The first ORV pilot project started in 1988, with a manual distribution of baits (Tübingen model with the SAD strain) covering only a limited area in the north-western part of Slovenia. Thereafter, two

vaccination campaigns (in spring and autumn) have been conducted as part of a strategy to push rabies from the west to the east of the country. At that time, 40,000 to 60,000 baits were distributed in each campaign at a rate of 16 to 20 baits per km². In the few years that followed, the whole territory of Slovenia was covered with baits three times. However, it was discovered that the success rate was not satisfactory if only a certain region was covered in each campaign.

Based on these poor results, a new strategy to combat rabies was implemented in 1995. Since then, the aircraft distribution of baits to the whole territory of Slovenia has been conducted twice a year, in spring and autumn. GPS was used to support bait distribution and is still used today as part of the prevailing strategy. Specific software has been developed to analyse the ORV distribution data received through the use of GPS. Based on daily analyses of the ORV distribution data, corrective action can be taken immediately, if needed. On average, 920,000 baits per year are distributed in two vaccination campaigns. The baiting density varies between 22 and 26 baits per km². With a few slight modifications, which were needed because of the changing rabies situation in neighbouring countries, the ORV programme resulted in the eradication of rabies in Slovenia.

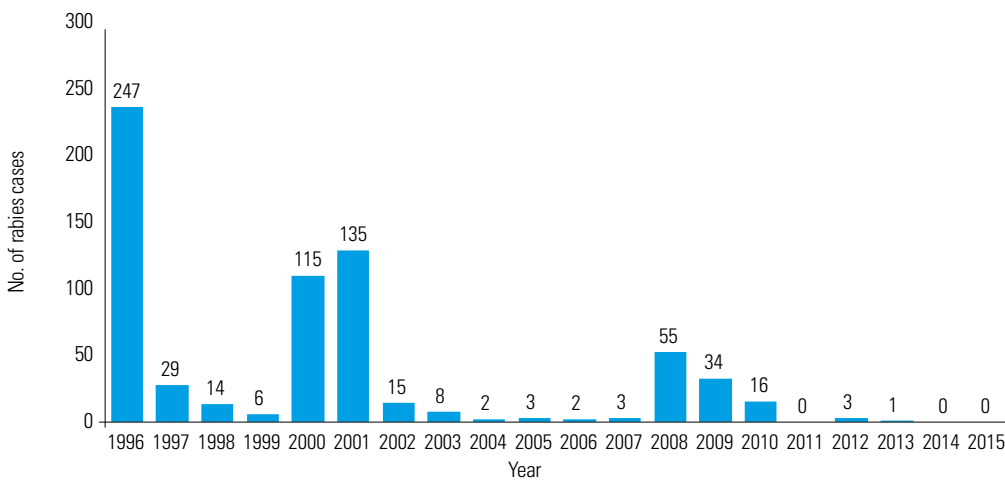


Fig. 4
Rabies cases in Slovenia (1996–2015)

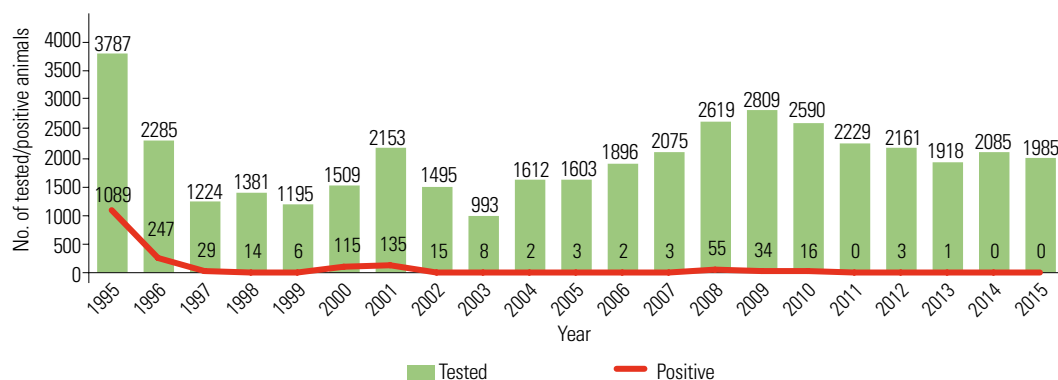


Fig. 5
Rabies surveillance in Slovenia (1995–2015)

As a result of the high infection pressure in the region, and the absence of ORV in wildlife populations in neighbouring countries, rabies cases have been continuously detected in areas along the eastern and southern borders of Slovenia until recent years. After the implementation of ORV in neighbouring countries, the rabies situation improved, and the last case of indigenous rabies was diagnosed in Slovenia in January 2013.

Since rabies still remains a permanent threat in the region, regular ORV campaigns will be implemented in the 50-km vaccination buffer zone along the eastern and southern borders, to prevent reoccurrence of the disease. In addition, an emergency stock of rabies vaccine baits will be held, which would enable swift and effective emergency vaccination if needed.

The rabies eradication programme in Slovenia has been assessed, approved and co-financed by the European Union since 2005.

Rabies surveillance and monitoring

The results of adequate laboratory-based rabies surveillance and ORV monitoring have proven the efficiency of the rabies eradication programme in Slovenia.

a) Rabies surveillance

Rabies is a compulsory notifiable disease in Slovenia. Any suspicion of rabies should be

immediately, and without delay, notified to the Competent Authority. Detailed measures for the detection, suppression and elimination of rabies are prescribed with the following legislation:

- Rules on animal diseases (OJ No. 81/07 dated 24 October 2007)
- Rules on measures for the detection, prevention and eradication of rabies (OJ No. 98/2013)
- Order for the systematic monitoring of animal health programmes for the eradication of animal diseases and vaccination of animals in 2016 (OJ No. 105/2015 dated 30 December 2015 and No. 4/2016 dated 22 January 2016).

In the case of rabies surveillance, animals showing clinical signs of rabies (strange behaviour or central nervous system [CNS] signs in animals in contact with wild animals or animals that are not available for testing, road-kills, animals found dead, etc.) should be sent for rabies diagnosis to the National Veterinary Institute (NVI) (Fig. 5).

The NVI is a designated laboratory for rabies diagnostics. It also performs tasks as the National Reference Laboratory for Rabies. The reliability of its results is therefore ensured by standardised operations and compliance with the standards defined in the criteria for the operation of testing laboratories (EN ISO/IEC 17025). The compliance of its operations is demonstrated with an acquired accreditation certificate (PT-021), the Slovenian Accreditation (SA).

b) Monitoring ORV efficiency

To monitor the efficiency of ORV, samples from healthy foxes shot during regular hunting are submitted to the NVI for laboratory testing. In this context, hunters are contracted to the AFSVSPP to shoot the defined number of foxes. The total number of samples corresponds to international recommendations (*WHO Expert Consultation on Rabies, Second Report*, WHO Technical Report

Series 982) on rabies monitoring; i.e. testing four foxes per 100 km². Samples are tested for the presence of a biomarker (tetracycline) to monitor bait uptake and for the presence of antibodies to monitor the level of protection (antibody titre > 0.5 IU/ml). Monitoring data are stratified according to the age of shot foxes (Figs. 6 and 7).

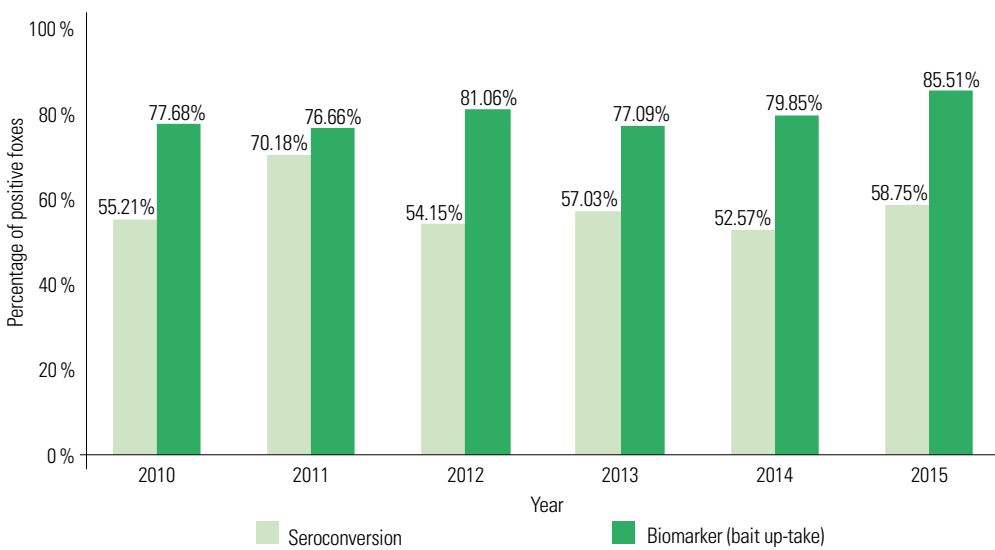


Fig. 6
Results of oral rabies vaccination efficiency (foxes of all age classes)

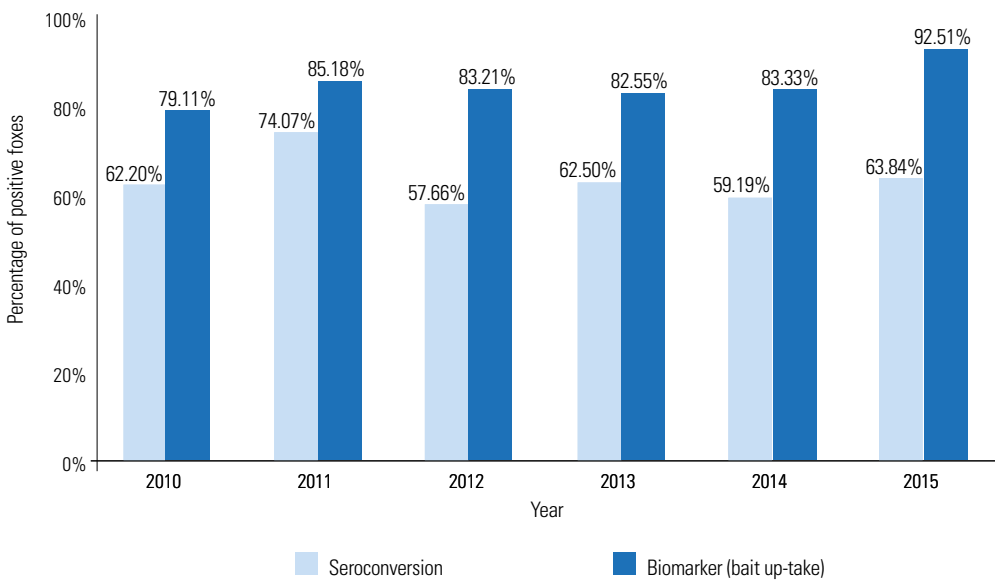


Fig. 7
Results of oral rabies vaccination efficiency (adult foxes)



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c) Monitoring lyssaviruses in the Slovenian bat population

In the years from 2008 to 2011, a monitoring programme to determine the presence of European bat lyssavirus (EBLV) in bats in Slovenia was conducted. During active surveillance, over 800 animals (from 22 of the 28 bat species currently living in Slovenia) were tested. The survey was supplemented by intensive passive surveillance. In the period from 2008 to 2011, an additional 130 bats from 17 bat species were tested under passive surveillance.

Blood samples and mouth swabs were taken for laboratory diagnostics.

Intensive active sampling in the years from 2008 to 2011, which included a large proportion of serotine bat (*Eptesicus serotinus*) colonies and a significant number of Daubenton's bat (*Myotis daubentonii*), did not show the presence of EBLV in Slovenian populations of these species, which are the most likely carriers of the disease.

Active and passive sampling of species that often use buildings for their breeding sites and could therefore come into contact with humans more frequently (e.g. lesser

horseshoe bat [*Rhinolophus hipposideros*], greater mouse-eared bat [*Myotis myotis*], Geoffroy's bat [*M. emarginatus*], common noctule [*Nyctalus noctula*], Kuhl's pipistrelle [*Pipistrellus kuhlii*] and Schreibers' bat [*Miniopterus schreibersii*]) also did not reveal the presence of EBLV.

Passive surveillance is conducted continuously.

The presence of EBLV has not been confirmed during the monitoring of lyssaviruses in Slovenian bat populations.

Import/trade procedures

As a Member of the European Union (EU), Slovenia follows import/trade procedures in line with EU legislation. For the non-commercial movement of pets, the following apply:

- Regulation (EU) No. 576/2013 of the European Parliament and of the Council of 12 June 2013 on the non-commercial movement of pet animals and repealing Regulation (EC) No. 998/2003
- Commission Implementing Regulation (EU) No. 577/2013 of 28 June 2013 on model identification documents for the non-commercial movement of dogs, cats and ferrets, the establishment of lists of territories and third countries and the format, layout and language requirements of the declarations attesting compliance with certain conditions provided for

in Regulation (EU) No. 576/2013 of the European Parliament and of the Council.

In regard to the trade and import of dogs, cats and ferrets, Slovenia fully implements Council Directive of 13 July 1992 laying down animal health requirements governing trade in and imports into the Community of animals, semen, ova and embryos not subject to animal health requirements laid down in specific Community rules referred to in Annex A (I) to Directive 90/425/EEC.

According to the provisions of the legislation given above, very strict conditions apply for vaccination against rabies. Animals coming from third countries not listed in Annex II of Commission Implementing Regulation (EU) 577/2013 (countries with an unfavourable rabies situation) should undergo additional laboratory testing to prove a sufficient level of protection against rabies (antibody titre) before entry into the EU.

Trade with/non-commercial movement of unvaccinated animals younger than three months is, according to the national rules that implement the EU legislation (Regulation 576/2013 and Directive 92/65), allowed only from/between EU countries.

Disease awareness

Regular rabies awareness campaigns will be organised to increase awareness of the danger posed by rabies and the measures to be taken for its prevention. Maintaining a high level of vigilance will allow for a timely response to any occurrence or reoccurrence of the disease. There will also be a strong emphasis on public awareness campaigns to promote responsible dog ownership and awareness of the risks

posed by the illegal movements of pet animals from areas infected with rabies, as well as the natural migration of wild animals, for the resurgence of rabies and its further spread.

Conclusion

Rabies is a compulsory notifiable disease in Slovenia. A rabies surveillance, control and eradication programme is in place for wildlife and domestic animals, including compulsory oral vaccination of the wildlife population, compulsory vaccination of dogs, and an ongoing system of rabies surveillance and monitoring and rabies awareness.

Thus, Slovenia complies with the provisions of Article 8.13.3. of the *Terrestrial Animal Health Code* (2015) regarding the conditions to be met for a country to be considered free from rabies.

Therefore,

- considering the information mentioned above,
- considering the fact that no case of indigenously acquired rabies virus infection has been confirmed in Slovenia during the past three years, and
- in accordance with Article 8.13.3. of the *Terrestrial Animal Health Code* (2015),

the Delegate of Slovenia to the OIE declares that the country is free from rabies as of 1 May 2016.



OIE standards: the ‘take home messages’ from three WTO disputes on trade in animal products under the SPS Agreement

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Keywords

OIE standard – SPS Agreement – WTO dispute.

Summary

This paper reviews the implications for the OIE of World Trade Organization (WTO) disputes concerning sanitary measures and international trade. In each of the three cases discussed, the Dispute Settlement Body concluded that the defendant was in breach of its obligations, in part because its failure to respect the OIE standards resulted in non-compliance with related provisions of the WTO Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement).

The findings of panels and the Appellate Body are the key source of legal interpretation of the WTO Agreements and serve as guidance to governments when developing policies and implementing measures that affect international trade. The SPS Agreement's fundamental premise is that WTO Members should base their health measures on science: countries are encouraged to harmonise their measures with the standards of the recognised intergovernmental standard-setting organisations (ISSOs). The outcomes of the disputes clearly illustrate the importance of respecting the OIE standards – both for safe trade and to meet the obligations of WTO membership.

The OIE takes care to ensure the scientific quality and currency of its standards and to take into account the relevant provisions of the SPS Agreement in the standard-setting process. Member Countries are encouraged to become involved in standard-setting and to apply the adopted standards. Performance in this regard is included in the evaluation of the performance of Veterinary Services (VS) and Aquatic Animal Health Services (AAHS) under the OIE PVS framework. The Sixth OIE Strategic Plan (2016–2020) includes actions to reinforce scientific quality and to enhance procedural transparency and accountability to ensure continual improvement in the OIE's normative activities.





1. Introduction

The World Trade Organization (WTO) Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement) came into effect in 1995. The Agreement requires countries to base their health measures on science and, where possible, to harmonise their measures with the standards of three specific ISSOs. The OIE standards, guidelines and recommendations are relevant to the harmonisation of measures relating to animal health and zoonoses.

One of the great benefits of the WTO framework is the dispute settlement process, which has been described as ‘making the trading system more secure and predictable’ [1]. The WTO Dispute Settlement Understanding (DSU) establishes rules and timetables for settling disputes. It provides for the convening of panels to make ‘an objective assessment of the facts of the case and the applicability of and conformity with the relevant covered agreements’ (DSU Article 11). Panels provide reports to the Dispute Settlement Body (DSB), which comprises all WTO Members. The DSB

formally adopts the panel’s rulings and recommendations, modified, as the case may be, by the WTO Appellate Body (AB). The implementation of the rulings can also be examined by ‘Implementation’ panels. Information on the DSU may be found on the WTO website [2].

Since 1 January 1995, 45 formal complaints have alleged violation of the SPS Agreement. Panels have addressed 16 of these disputes to date [3].

This paper considers the implications for the OIE of the following disputes:

- **DS447 USA:** Measures affecting the importation of animals, meat and other animal products from Argentina (foot and mouth disease, FMD).
- **DS430 India:** Measures concerning the importation of certain agricultural products (notifiable avian influenza, NAI).
- **DS18 Australia:** Measures affecting the importation of salmon (fish diseases).

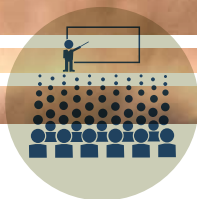


Table I
DS447, DS430 and DS18 – findings of most relevance to OIE standards

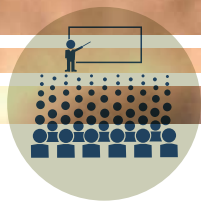
Findings	Relevant articles in the SPS Agreement
The measures lacked sufficient scientific evidence and were not based on a risk assessment – DS447, DS430 (modified by AB) and DS18	Art. 2.2. – Members shall ensure that any sanitary or phytosanitary measure is applied only to the extent necessary to protect human, animal or plant life or health, is based on scientific principles and is not maintained without sufficient scientific evidence (...) Art. 5.1. – Members shall ensure that their sanitary or phytosanitary measures are based on an assessment (...) of the risks to human, animal or plant life or health, taking into account risk assessment techniques developed by the relevant international organizations
The measures arbitrarily and unjustifiably discriminated between Members where identical or similar conditions prevail and were applied in a manner constituting a disguised restriction – DS447, DS430 and DS18	Art. 2.3. – Members shall ensure that their sanitary and phytosanitary measures do not arbitrarily or unjustifiably discriminate between Members where identical or similar conditions prevail, including between their own territory and that of other Members. Sanitary and phytosanitary measures shall not be applied in a manner which would constitute a disguised restriction on international trade
The measures were not ‘based on’ the relevant international standard – DS447 and DS 430 – and did not ‘conform to’ this standard – DS430	Art. 3.1 – To harmonize sanitary and phytosanitary measures on as wide a basis as possible, Members shall base their sanitary or phytosanitary measures on international standards, guidelines or recommendations (...) Art. 3.2. – Sanitary or phytosanitary measures which conform to international standards, guidelines or recommendations shall be deemed to be necessary to protect human, animal or plant life or health
The measures reflected arbitrary or unjustifiable distinctions in the appropriate levels of protection, which resulted in discrimination or a disguised restriction on international trade – DS18	Art. 5.5. – (...) each Member shall avoid arbitrary or unjustifiable distinctions in the levels it considers to be appropriate in different situations, if such distinctions result in discrimination or a disguised restriction on international trade (...)
There were alternative measures that would achieve the ALOP, were significantly less trade restrictive, and were technically and economically feasible – DS447 and DS430. DS18 panel finding on Article 5.6 was reversed by AB.	Art. 5.6. – (...) Members shall ensure that such measures are not more trade-restrictive than required to achieve their appropriate level of sanitary or phytosanitary protection, taking into account technical and economic feasibility
The measures were not adapted to SPS characteristics of a region – DS447	Art. 6.1 – Members shall ensure that their sanitary or phytosanitary measures are adapted to the sanitary or phytosanitary characteristics of the area (...) from which the product originated and to which the product is destined (...)
The measures did not recognise the concept of ‘disease freedom’ or ‘low prevalence’ in a region (Art. 6.2) and were not adapted to the SPS characteristics of such areas (Art. 6.1) – DS430	Art. 6.2 – Members shall, in particular, recognize the concepts of pest- or disease-free areas and areas of low pest or disease prevalence (...)

2. The findings on disputes DS447, DS430 and DS18

In each of these disputes the measures at issue were found to violate certain articles of the SPS Agreement and the outcome was a ruling from the DSB recommending that the defendant bring its measures into conformity.

Table I above shows the findings that are most relevant to the OIE.

Detailed information on these disputes, including panel and Appellate Body (AB) reports, may be found on the WTO website [3].



2.1. Scientific evidence and risk assessment – Articles 2 and 5 of the SPS Agreement

Article 2, 'Basic Rights and Obligations', elaborates the basic rights and obligations of WTO Members under the SPS Agreement, including non-discrimination (Art. 2.3). Article 5, 'Assessment of Risk and Determination of the Appropriate Level of Sanitary or Phytosanitary Protection' (ALOP), provides inter alia more detailed obligations with respect to risk assessment (Art. 5.1 5.3), establishes the objectives of minimising negative trade effects (Art. 5.4) and of achieving consistency in levels of protection (Art. 5.5) and specifies that sanitary measures should not be more trade restrictive than required (Art. 5.6).

In the first dispute under the SPS Agreement (EC – Hormones – DS26), the AB stressed the close relationship between Articles 2 and 5, stating that: 'Articles 2.2 and 5.1 should constantly be read together. The elements that define the basic obligation set out in Article 2.2 impart meaning to Article 5.1. In a similar way, Article 5.5 may be seen as elaborating a particular route to the destination set out in Article 2.3. Thus, Article 2.2 informs Article 5.1 and Article 2.3 informs Article 5.5' [4].

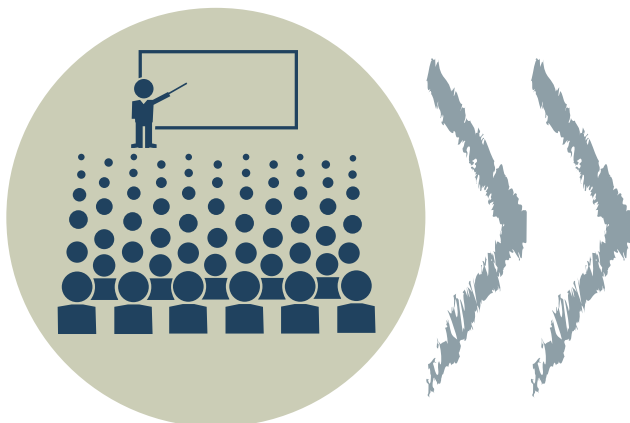
In practice, many panels assessing disputes about sanitary measures start by considering claims under Article 3 (Harmonisation), which encourages WTO Members to base their health measures on international standards. For commodities of

animal origin, the OIE standards, guidelines and recommendations are not only references for the purpose of harmonisation but also key sources of relevant information when considering the scientific rationale for sanitary measures. To date no panel has found that measures are 'based on' (Article 3.1) or 'conform to' (Article 3.2) the relevant international standards. The next step is to consider Article 5. If a panel finds a violation of both Articles 3 and 5, there is a rebuttable presumption that Article 2.2 has also been violated.

It follows that compliance with or violation of articles is considered in a complementary manner. For example, in DS18 the panel discussed the rational relationship between a 'scientific basis for a measure' of Article 2.2 and the requirement in Article 5.1 for a measure to be 'based on' a risk assessment. The Panel found that Australia's requirement for salmon to be 'consumer-ready' was not 'based on' a risk assessment. The violation of Article 5.1 gave rise to a consequent violation of Article 2.2 [5]. The AB disagreed with some aspects of the panel's rationale but upheld the panel's finding that the Australian measure on salmon was in violation of Articles 5.1 and 2.2 [6].

Both the SPS Agreement (Article 11.2) and the DSU (Article 13) provide for panels to consult experts and relevant ISSOs. In DS447 and DS430 the OIE provided written responses to questions from the panel. The OIE may also assist panels by providing the names of scientific experts. Point 10 in the OIE/WTO Cooperation Agreement is relevant: 'procedures may be agreed for the designation of scientific and technical experts with a view to the application of the provisions of the SPS Agreement' [7].

Panels must take care to respect due process and the rights of parties to a dispute. In DS430 India claimed inter alia that the panel had acted inconsistently with the SPS Agreement or the DSU by consulting the OIE on the interpretation of its standards and by consulting experts regarding India's claimed status of freedom from low pathogenic NAI. The AB rejected these claims [8].



2.2. Risk assessment – Article 5 and Annex A (4) of the SPS Agreement

DS18 and DS430 are of particular interest with respect to the panels' consideration of what constitutes a 'proper' risk assessment. The SPS Agreement provides that the OIE recommendations on risk assessment should be 'taken into account' by WTO Members when establishing measures for animal diseases. In DS18 the panel discussed in detail the elements that comprise a risk assessment. Taking into account the relevant OIE standards and the advice of experts, the panel concluded that the Australian measure was not based on a risk assessment in accordance with Article 5.1.

In DS430, the panel found that the information presented by India did not meet the definition of a risk assessment in Annex A (4) of the SPS Agreement, and concluded that the measures were not based on an appropriate risk assessment. In the absence of a risk assessment, the panel found that the measures were also inconsistent with Article 5.2 and, consequentially, with Article 2.2 (measures must be based on scientific principles and not maintained without sufficient scientific evidence) [9]. India appealed the finding of a 'consequential violation' of Article 2.2. Noting that the presumption of a consequential violation of Article 2.2 was rebuttable, the AB reversed, in part, the findings of inconsistency with Article 2.2 but upheld the panel's findings on Articles 5.1 and 5.2 [8].

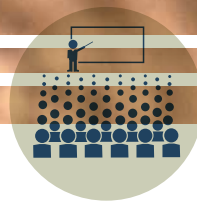
2.3. Harmonisation and regionalisation – Articles 3 and 6 of the SPS Agreement

Article 3 of the SPS Agreement encourages the harmonisation of measures with ISSO standards, guidelines and recommendations. Measures that conform to international standards are deemed to be necessary and presumed to be consistent with the relevant provisions of the SPS Agreement and the General Agreement on Tariffs and Trade (GATT) 1994. However, an importing country may establish measures that are more restrictive than the international standards provided that there is a scientific justification or as a consequence of a desired higher level of health protection determined in accordance with the relevant provisions of Article 5.

In DS447 and DS430, the panels considered the *Terrestrial Code* chapters on FMD and avian influenza (respectively) in assessing the consistency of the measures at issue with the international standards. Zoning is a relevant aspect of the standards for both diseases and the recommendations in *Terrestrial Code* Chapter 4.3. on zoning and compartmentalisation must be read in conjunction with the disease-specific chapters.

In DS430 India argued that its measures conformed to the *Terrestrial Code*. However, the *Code* chapter on avian influenza does not restrict the importation of poultry products to NAI-free countries, as required by India's measure. The panel concluded that India's measures were not based on the OIE standards, and therefore could not be in conformity with the standards. This finding of violation of Article 3 was upheld by the AB [8, 9]. In DS447, the non-acceptance of meat products from regions that were FMD-free with vaccination, and the non-recognition of regions as FMD-free without vaccination, resulted in the panel's conclusion that the US measures were not based on the relevant OIE standards.





2.4. Levels of protection and the avoidance of discrimination or disguised restrictions on international trade – Articles 5.5 and 2.3

Article 5.5 calls for consistency in the application of the concept of the appropriate level of protection (ALOP), while Article 2.3 of the SPS Agreement addresses the issues of discrimination between WTO Members and disguised restrictions on international trade. Although the OIE standards may not seem to be directly relevant, the findings in DS447 and DS430 indicate that, here again, the OIE standards can have an important bearing on the outcome of a case.

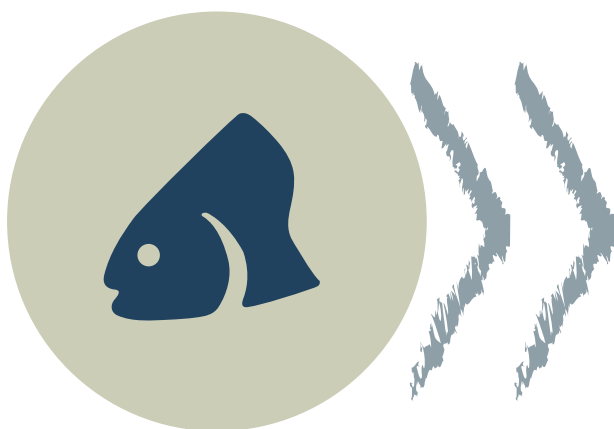
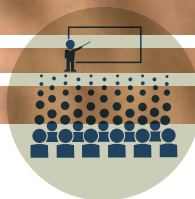
In DS18 the panel consulted experts on risks associated with aquatic animal diseases. Noting that some disease agents were common to both salmon and other fish species, the panel found that the Australian measures violated Article 5.5 because the distinctions in levels of sanitary protection reflected in the measures for salmon, as opposed to other fish, were ‘arbitrary or unjustifiable’ in the sense of Article 5.5. The panel also found that the measure at issue consequently violated Article 2.3 [5].

In DS430, two ‘forms’ of discrimination were considered. First, the panel compared India’s prohibition of products from countries with

NAI with the measures placed on domestic products in the case of an NAI outbreak. Only domestic poultry products originating within a 10-km zone around an outbreak (surveillance zone) were subject to restrictions on movement or sale. The panel considered that this discrimination was arbitrary or unjustifiable since India’s measures did not account for circumstances in which there might be no risk associated with a foreign outbreak of NAI. The panel decided that ‘identical or similar conditions prevail’, as there was no evidence suggesting that the risks associated with low pathogenic NAI differed according to the origin of the product. The panel therefore concluded that the measures were inconsistent with the first sentence of Article 2.3 [9].

The second form of discrimination concerns the conditions on imported products compared to India’s surveillance and domestic status for low pathogenic NAI. After consulting scientific experts, the panel concluded that India’s disease surveillance system was not capable of reliably detecting low pathogenic NAI viruses. Since India banned the importation of poultry products from countries in which low pathogenic NAI was present, the panel concluded that India’s measures discriminated between India and other WTO Members. The panel also found that India failed to demonstrate that low pathogenic NAI did not exist in India and consequently concluded that the discrimination was arbitrary and unjustifiable and that the measures were inconsistent with Article 2.3 [9].

In DS447, the USA was found to have violated Article 2.3 because its measures arbitrarily and unjustifiably discriminated between Members where identical or similar conditions prevailed (i.e. Northern Argentina and Uruguay on the one hand and Patagonia and Santa Catarina, Brazil, on the other) and were applied in a manner which constitutes a disguised restriction on international trade [10].



2.5. Alternative and less trade-restrictive measures – Article 5.6

Article 5.6 calls for Members to ensure that their SPS measures are not more trade restrictive than required to achieve their ALOP, taking into account technical and economic feasibility.

In DS430, the panel found that the US had proposed alternative measures (recognition of disease-free zones) that were significantly less trade restrictive than an import prohibition. Recognising that the OIE standards were designed to achieve an optimal level of security, to facilitate safe trade based on the latest available scientific evidence, the panel concluded that the application of the OIE standards would achieve India's ALOP. The panel therefore found India's measures to be inconsistent with Article 5.6 [9].

In DS447, the panel found that the addition of Patagonia to the list of FMD-free countries or regions under the US Code of Federal Regulations and the application of relevant protocols, as proposed by Argentina, would be less trade restrictive and still achieve the US ALOP. The panel ruled, therefore, that the US prohibitions on imports of beef from Northern Argentina and FMD-susceptible animals and animal products from Patagonia were inconsistent with Article 5.6 [10].

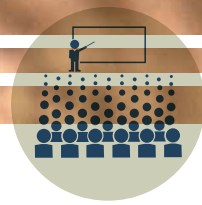
3. The implications of these findings for the OIE

Highly contagious epizootic diseases like FMD and avian influenza generate fear and governments may contemplate imposing import bans or extremely restrictive measures in the hope that they can avoid all risk. However, no country can achieve a 'zero risk' approach to the protection of animal health and public health, given the globalised nature of economies and the movement of people and goods. Governments concerned about preventing diseases should instead focus on correctly implementing the relevant OIE standards, including in emergency situations. The *Terrestrial* and *Aquatic Codes* contain science-based recommendations for the prevention and control of animal diseases and zoonoses, the timely reporting of disease to the OIE, and for safe international trade in animals and their products. The SPS Agreement grants the OIE standards an official status. The application of these standards provides for compliance with the SPS Agreement without the need to conduct a risk assessment or to justify the level of protection that the measures are expected to provide.

The OIE follows a rigorous scientific process built on the involvement of internationally renowned scientists, many of whom work in the OIE global network of more than 300 Reference Centres. This network of scientific expertise is the core of the OIE's normative process and also a source of support for the WTO dispute settlement process.

The standard-setting procedures are democratic. Each OIE Member Country has opportunities to review and propose modifications to draft and revised standards (and must provide a scientific rationale for proposed amendments). National Delegates to the OIE are responsible for the adoption of standards as well as for promoting their implementation by governments. The OIE continually encourages Member Countries to participate in the standard-setting process; this is important to ensure the quality and applicability of the standards. 'Effective participation in the OIE' is one of the competencies considered in the evaluation of the quality of Veterinary Services and Aquatic Animal Health Services under the OIE PVS Pathway [11].





Transparency is an important part of the OIE's raison d'être. From its foundation in 1924, both the Organisation and the Member Countries have an unconditional duty to disclose all relevant information about animal diseases, as stated in the OIE Organic Statutes [12]. Transparency is also an important feature of the standard-setting process. In recent years the OIE has taken steps to make the process more transparent and inclusive, e.g. by facilitating the participation of developing countries and by providing more comprehensive information to Member Countries and the public. The Sixth OIE Strategic Plan (2016–2020) includes steps to further strengthen internal governance and transparency. The operating procedures of the OIE's decision-making bodies will be adjusted to ensure the efficient and timely development of scientific standards, updated recommendations and guidelines. To ensure scientific excellence, the procedures for selecting experts will be revised, in compliance with the Basic Texts currently in force, and the internal scientific secretariat processes will be strengthened. The processes of appraisal to support official recognition of animal disease status will be made more robust. Finally, procedures will be strengthened to improve transparency and accountability to Member Countries and partner organisations [13].

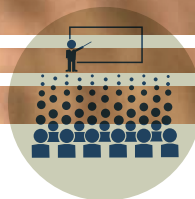
In the development of standards for aquatic animals, the OIE has been responsive to the growth in aquaculture

and the related needs of Member Countries. In 1998, when DS18 was taking place, the *Aquatic Code* was newly established and there were few specific standards for aquatic commodities. In 2016 the *Aquatic Code* is a substantial reference that provides alternative approaches to risk management, including criteria to assess the safety of aquatic commodities [14].

Following the establishment of the WTO in 1995, new texts on the relationship between the OIE procedures and the SPS Agreement were adopted as Chapter 5.3. in the *Terrestrial and Aquatic Codes*. This chapter deals with key SPS principles, including the equivalence of sanitary measures and the use of zoning and compartmentalisation for disease control and trade, giving effect to the SPS principle of regionalisation. To facilitate the application of these SPS concepts, Chapter 5.3. in the *Codes* contains articles on the responsibilities of importing and exporting countries in making a judgement of equivalence and on the steps to be taken to establish a zone or compartment and obtain recognition for the purposes of international trade [15, 16]. The OIE also participates actively in discussions of the WTO SPS Committee on these and related topics.

On its website, the OIE provides guidance on the obligations of Member Countries in relation to international trade. These documents are not considered to be standards; rather, they are intended to help the interpretation and application of the adopted standards. This information is valuable to panels seeking to understand if parties to a dispute have interpreted and applied the standards in a correct or reasonable manner.

The findings in DS430 on Article 2.3 with respect to the adequacy of domestic disease surveillance programmes are highly significant for OIE Member Countries. For several years the OIE has put increasing emphasis on the effectiveness of disease surveillance, which is critical to transparency and preventing the spread of diseases in the world. The *Codes* contain both general and disease-specific recommendations for effective surveillance. The application of these recommendations is fundamental to the standards for quality of Veterinary Services and Aquatic Animal



Health Services. The outcome of DS430 shows that, in the context of a WTO dispute, countries that have not followed the OIE recommendations on disease surveillance may have difficulty in defending measures that purport to protect a health status superior to that of trading partners.

In DS430 the Panel specifically considered the difference between the obligations of Article 6.2, which calls for the importing country's legal system to recognise the concept of disease-free areas, and those of Article 6.1, which require the practical application of this concept. This is also an important finding for OIE Member Countries, many of which do not have provision for the establishment or recognition of pest or disease-free zones in their veterinary legislation; a situation that risks inconsistency with Article 6.2.

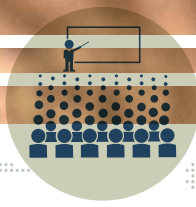
The OIE standards may also play a role in assessments by WTO panels of compliance with Article 5.6. In the *Codes*, the OIE identifies alternative and equivalent conditions for safe trade in animals and products. In principle, OIE standards may be considered as the 'least trade restrictive' measures to protect health. The OIE continues to develop and expand standards that will facilitate safe trade. In addition to conditions for disease-free zones and compartments, the OIE is gradually including articles on 'safe commodities' in relation to all diseases, as appropriate. For safe commodities, no measures are required, regardless of the status of the country or zone for the disease in question.

OIE recommendations on alternative measures for safe trade will continue to be highly relevant to panels when considering the issue of compliance with Article 5.6.

The adaptation of trade measures to the sanitary status of the exporting and importing country or zone is also relevant to judgements on the extent to which measures appropriately restrict trade. At the request of a Member Country the OIE may grant an official health status with respect to FMD and five other terrestrial animal diseases. For other diseases, including avian influenza, a government may make a self-declaration (under its own responsibility) as to the freedom of a country or zone. Evaluation of a dossier for an official disease status follows Standard Operating Procedures that are detailed in the *Terrestrial Code* and the final decision to grant the requested status is the subject of a Specialist Commission's proposal adopted by resolution of the World Assembly at the OIE General Session. The OIE publishes a list of countries having official disease status on its website [17]. The similarity of this procedure to the procedure for the adoption of standards in the *Codes* suggests that decisions granting official disease-free status to countries and zones should have similar 'weight' to the standards in the *Codes*. The SPS Agreement does not differentiate between standards, guidelines and recommendations and panels have not, to date, discussed the relative importance of texts that are adopted by official Resolution in comparison with other texts, such as OIE guidelines and recommendations. However, adopted standards are the subject of a more detailed process of review than texts written purely for guidance and panels may take this into account in future.

Member Countries generally recognise the value of official decisions on disease status for the export of animals and animal products. However, these decisions are not always used as the basis for the establishment of sanitary measures and there have been some calls for greater transparency in the decision-making process. To address any concerns and to strengthen the resolve of Member Countries to adopt measures that are adapted to the OIE Resolutions on disease status, the OIE will take steps to strengthen the relevant procedures in accordance with the Sixth Strategic Plan (2016–2020).





Conclusions

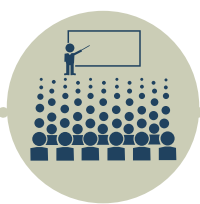
This paper highlights the importance of the OIE standards to the operation of the WTO dispute resolution process. The harmonisation of sanitary measures with the OIE standards is the most obvious connection but the linkage is more pervasive and complex. In determining whether measures comply with the SPS Agreement, the relationships between various articles of the Agreement are taken into account: a violation of one article can lead to consequential violations of other articles. In the cases examined in this paper, the OIE standards were discussed in the assessment of consistency of the disputed measures with Articles 2, 3, 5 and 6. In each dispute the Dispute Settlement Body concluded that the defendant was in breach of its obligations, in part because the measures were inconsistent with the OIE standards and consequently violated related provisions of the SPS Agreement.

From the above discussion it is clear that the OIE standard-setting procedures must be rigorous; based on current and complete scientific information and consistent with the requirements in the SPS Agreement. The OIE is well aware of this fact. The Organisation continually encourages greater participation by Member Countries to ensure the completeness and relevance of the standards. Strengthening transparency and inclusiveness is an ongoing priority. The OIE is also doing more to encourage the implementation of the adopted standards. The appropriate adaptation of trade measures to official OIE Resolutions on country and zone disease-free status, together with the application of zoning and compartmentalisation, are crucial to support safe international trade, particularly in light of the constant evolution of animal diseases in the world and the difficulties of achieving national freedom from highly contagious diseases.

The OIE quality standards for Veterinary Services and Aquatic Animal Health Services are the cornerstone of safe international trade. All Member Countries and partners of the OIE should continue to support capacity building in the framework of the OIE PVS Pathway.

Acknowledgements

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special events

The OIE showcases its work at key international fairs

International Green Week Berlin and the Paris International Agricultural Show 2016

For the sixth year running, the OIE took part in International Green Week Berlin (15–24 January 2016) and the Paris International Agricultural Show (27 February – 6 March).

Co-exhibiting on the European Commission stand (represented by the Directorates-General of Health and Food Safety, Agriculture and Rural Development, and Maritime Affairs and Fisheries), the OIE took the opportunity to explain to visitors to the Paris International Agricultural Show the successive stages

in the 'farm to fork' food production chain and the international rules and standards governing food safety.

A whole host of activities, including videos, quizzes and a tasting workshop, were staged to raise the awareness of visitors of all ages about the role of animal health professionals, especially veterinarians, in ensuring compliance with legislation on animal health and welfare and animal product safety and quality. In this regard, the OIE placed particular emphasis on the 'One Health' concept.

The 81st Green Week Berlin attracted more than 400,000 visitors.



The 81st Green Week Berlin attracted more than 400,000 visitors who were able to learn about antibiotic resistance, animal welfare and the different roles of veterinarians along the food chain



The 53rd Paris International Agricultural Show, which hosted several thousand animals, welcomed more than 611,000 visitors over the course of the week. Many visitors received an introduction to the OIE's work through a range of activities – in this case a quiz



James E. Pearson

Passed away on 3 April 2016 at the age of 82

Dr Jim Pearson graduated with a degree in agriculture from Iowa State University, in the United States of America. After his early service in the military, retiring as a lieutenant colonel, he returned to his family farm for a short time before again attending Iowa State University, where he graduated with a degree in veterinary medicine, and later went on to earn a master's degree. After graduation, Dr Pearson worked for two years in a veterinary practice, working with both large and small animals. In 1968, he started his career as a research virologist at the National Animal Disease Center in Ames, Iowa. He then went on to serve for three decades (1970–1999) at the National Veterinary Services Laboratory (NVSL), also in Ames, first as Head of the Avian, Equine and Ovine Viruses Section, then as Chief of the Diagnostic Virology Laboratory, and finally as the Director of NVSL.

Dr Pearson was elected Vice-President of the OIE Biological Standards Commission in May 1991 and served in this position until May 2000. From 1999 to 2002 he headed the OIE Scientific and Technical Department. He was coordinator of three of the four OIE Specialist Commissions. He also coordinated the Working Group on Wildlife Diseases, represented the OIE at the Pan African Programme for the Control of Epizootics (PACE) Advisory Committee and served as Chairman. After leaving the OIE Headquarters he continued to represent the Organisation at national and international meetings and was the consultant technical editor for the *Manual of Standards for Diagnostic Tests and Vaccines*. He was also consulted by institutions for advice on laboratory testing and methods to establish and confirm disease freedom.

Dr Pearson was widely recognised for his work. He was one of the world's foremost authorities on the diagnosis of Newcastle disease. Along with numerous other honours, he was awarded the OIE Gold Medal in 2005, was presented the E.P. Pope Award for Excellence by the American Association of Veterinary Laboratory Diagnosticians and was recognised with eleven awards from the US Department of Agriculture. He also co-authored more than 115 publications.

September

Regional Workshop on the OIE World Animal Health Information System (WAHIS)
6–8 September
Panama City, Panama

27th Conference of the OIE Regional Commission for Europe
19–23 September
Lisbon, Portugal

Regional Seminar for OIE National Focal Points for Communication
(in English)
27–29 September
Mombasa, Kenya

October

OIE Regional Conference on Veterinary Education
10–13 October
Almaty, Kazakhstan

Regional Seminar for OIE National Focal Points for Communication
(in French)
11–13 October
Bamako, Mali

Regional Seminar for OIE National Focal Points for Veterinary Products
11–13 October
Budapest, Hungary

Regional Workshop on the OIE World Animal Health Information System (WAHIS)
18–20 October
Armenia

Annual Meeting of OIE Regional and Sub-Regional Representatives
25–28 October
OIE Headquarters, Paris, France

November

Regional Workshop on the OIE World Animal Health Information System (WAHIS) (in English)
1–3 November
Sharm El Sheikh, Egypt

23rd Conference of the OIE Regional Commission for the Americas
14–18 November
Santa Cruz de la Sierra, Bolivia

Regional Seminar for OIE National Focal Points on Wildlife
(in English)
22–24 November
Aberdare / Nakuru, Kenya

Regional Seminar for OIE National Focal Points for Veterinary Laboratories
29 November – 1 December
Harare, Zimbabwe

December

4th OIE Global Conference on Animal Welfare
6–8 December
Guadalajara, Mexico

Regional Seminar for OIE National Focal Points for Veterinary Laboratories
13–15 December
Kaslik, Lebanon

Alternatives to Antibiotics (ATA) International Symposium
13–15 December
OIE Headquarters, Paris, France
www.ars.usda.gov/alternativestoantibiotics/

2017

February

22nd Conference of the OIE Regional Commission for Africa
(dates to be confirmed)
Swakopmund, Namibia

85th General Session of the OIE World Assembly of Delegates
21–26 May
Paris, France

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COLOMBIA	ITALY	PAKISTAN	UNITED STATES OF AMERICA
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The future of pastoralism

Scientific and Technical Review, Vol. 35 (2)



Coordinators and editors:

J. Zinsstag, E. Schelling & B. Bonfoh

This issue of the *Scientific and Technical Review* discusses human and animal health services and the added value of improved collaboration between the two under a 'One Health' approach. It provides a vision for the sustainable use of pastoral ecosystems, providing innovative ideas for livelihoods, economic development, sustained ecosystem services, animal health management and social and institutional development.

Two-thirds of the world's agricultural land is grassland. Most of the semi-arid and high-altitude ecosystems are not suitable for growing crops, either because these areas have limited rainfall or because the terrain is mountainous, so they are predominantly used for various types of mobile livestock husbandry systems. Such systems are the only way that these grasslands can become a source of human nutrition, as humans cannot digest grass cellulose. Extensive pastoral livestock production is, therefore, the most productive use of these lands. Moreover, in addition to providing food for both humans and animals, pastoral livestock production absorbs carbon and sustains livelihoods that could not be maintained in any other way in these areas.



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