



Original: English
September, 2021

REPORT OF THE MEETING
OF THE OIE SCIENTIFIC COMMISSION FOR ANIMAL DISEASES
Virtual, 13 to 24 September 2021

A virtual meeting of the OIE Scientific Commission for Animal Diseases (the Commission) was held from 13 to 24 September 2021.

1. Adoption of the agenda

The draft agenda was adopted by the Commission. The meeting was chaired by Dr Cristóbal Zepeda and the OIE Secretariat acted as rapporteur. The agenda and list of participants are attached as Annexes 1 and 2, respectively.

2. Welcome

The OIE Deputy Director General International Standards and Science, Matthew Stone congratulated the experts of the Commission for their election. Dr Stone, together with Dr Gillian Mylrea, Head Standards Department, conducted an induction session at the start of the meeting. This was the final session of the Commission induction programme that had been implemented as part of the Performance Management System. In previous months induction sessions had been conducted for new Specialist Commission members, Presidents and all Commission members and secretariats, to meet each other and share information relevant to this new term.

During this induction session, Dr Stone presented for the consideration of members a discussion on managing the workload, roles and responsibilities, process innovation, and the performance management system.

Dr Stone recalled that Pre-General Session webinars hosted by Commission members to explain the standards being proposed for adoption were well received and will be repeated in future. He noted the participation of members of the Commission in the webinars led by the Code Commission. Dr Stone also encouraged Commission members to conduct webinars in their respective regions for Delegates and relevant Focal Points after the September meeting to explain decisions made. He acknowledged that these webinars would also provide a good way for members to build their constituency.

Dr Stone also addressed the following topics that were specific to this Commission: managing a heavy workload through collaborative and prioritised work programming, with acknowledgment of the increasing work associated with recognition and maintenance of official status; the potential use of components of virtual missions to complement but not replace in-country missions; the sourcing of best-available expertise for inclusion in expert consultations including OIE *ad hoc* Groups; and the progress in developing case definitions for all OIE-listed diseases for the purpose of improving notifications and that will progressively be incorporated into the OIE standards.

Dr Mylrea facilitated a short session on agreed ways of working in which members discussed expectations around behaviour and how they would like to work as a group in the coming three years. The President also shared with the members his expectations for the new term.

3. Terrestrial Animal Health Code

3.1. Comments received for Commission consideration

3.1.1. Article 8.14.7 ‘Recommendations for importation of dogs from countries or zones infected with rabies virus’

The Commission reviewed the response provided by the OIE Rabies Reference Laboratory network (RABLAB) addressing Member’s comments on Article 8.14.6bis. The Commission noted concerns by some Members on the proposed amended article concerning the reduction in the waiting period from 3 months to 30 days for the importation of vaccinated dogs from infected countries or zones.

The Commission recognised that, while there is scientific justification to support the reduction to 30 days, different countries may have stricter requirements. Thus, the Commission endorsed the expert opinion and the text as proposed in the new Article 8.14.6bis (circulated in September 2020, now Article 8.14.7.), noting that the text allows Members to apply stricter requirements provided they are based on risk analyses conducted in accordance with the *Terrestrial Code*.

The expert scientific rationale that complements the opinion paper presented in February 2020 to the Commission is attached as [Annex 3](#).

The opinion of the Commission together with the experts’ rationale were forwarded to the Code Commission for consideration.

3.1.2. Chapter 12.2. ‘Contagious equine metritis’ – provisions for freedom

At its last February 2021 meeting, the Commission discussed a Member request to either delist contagious equine metritis (CEM) or provide requirements for country or zone freedom. The Commission referred to experts to identify ways of determining historical freedom or declaring freedom from CEM without testing all stallions.

Whilst the Commission was in general agreement with the draft article proposed by the expert group, some requirements were considered too stringent. The Commission did not consider necessary that all equid and establishments are identified and registered as long as the Veterinary Authority has current knowledge of, and authority over, all establishments where equids are kept. In addition, the Commission was of the opinion that it is not necessary to test all establishments with horses and their germplasm in demonstrating country or zone freedom from infection with *T. equigenitalis*, and this could be achieved through an active surveillance programme based on a statistically representative sample of establishments.

Regarding historical freedom, the Commission found the provisions under Article 1.4.6.2 not applicable to infection with *T. equigenitalis*, since stallions do not display clinical signs and clinical signs may not be readily detectable in mares.

While reviewing the draft article for recovery of country or zone free status linked with the draft article on country or zone freedom, the Commission reviewed the draft requirements for recovery of freedom for an establishment under draft Article 12.2.3. The Commission questioned whether it would be sufficient to test an aliquot of stored semen, as the pathogenic agent would not be equally distributed in the different aliquots, thus recommended to refer to the surveillance provisions of this chapter.

Although the Commission acknowledged draft Article 12.2.3., on freedom from infection with *T. equigenitalis* at establishment level, based on the Glossary definition of the *Terrestrial Code*, the Commission was of the opinion that compartment would be the more appropriate term to use, because an establishment refers to the infrastructure where animals are kept whereas compartments refer to the animal health status of the subpopulation within them as well as the measures in place for the maintenance of that animal health status.

The opinion of the Commission including those from the February 2021 meeting was forwarded to the Code Commission for consideration.

3.1.3. Chapter 12.7. ‘Equine piroplasmosis’

The Commission reviewed the response from experts addressing Members comments on Chapter 12.7.

The rationale for the proposed amendments is attached in [Annex 4](#).

The opinion of the Commission was forwarded to the Code Commission for consideration.

3.2. Other considerations

3.2.1. Harmonisation of requirements for disease free status recognition and maintenance in disease-specific chapters

3.2.1.1. Chapter 12.1. ‘Infection with African horse sickness virus’

At its last February 2021 meeting, the Commission reviewed and endorsed the proposed amendments by the AHS *ad hoc* Group of December 2016. The Commission agreed to finalise its discussion regarding the ‘zone’ in which serological surveillance should be carried out over a distance of at least 100 kilometres or a lesser distance if there are relevant ecological or geographical features likely to interrupt the transmission of AHS virus, if adjacent to an infected country or zone, or to a country or zone practising vaccination with a live-attenuated vaccine (therefore, infected). Considering the recently updated concept of a protection zone in Article 4.4.6. that was adopted at the General Session in May 2021, the Commission agreed to make reference to an ‘area’ instead of a ‘zone’ with respect to the OIE terminology and for clarity. The Commission agreed that this requirement of serological surveillance in countries/zones adjacent to an infected country/zone also applies to those being recognised on the basis of historical freedom.

The opinion of the Commission including those from the February 2021 meeting was forwarded to the Code Commission for consideration.

3.2.2. Chapter 8.14. ‘Infection with rabies virus’

3.2.2.1. Development of draft article 8.14.Y ‘Recommendations for an official control programme for wildlife-mediated rabies’

The Commission reviewed the article drafted by the OIE Reference Laboratory (RABLAB) experts with the support of wildlife rabies experts, and noted the difficulty of providing general guidance and recommendations for the control of wildlife rabies given the broad range of mammalian species that serve as reservoir hosts of rabies virus worldwide.

The Commission discussed the feasibility of eliminating rabies in wildlife and considered that while in some situations this may be possible, in other situations the elimination of wildlife-mediated rabies is not an achievable objective, e.g., when rabies is bat mediated.

The Commission took note of the experts’ opinion that in countries where dog-mediated rabies is endemic, the high burden of dog-mediated rabies can mask the existence of additional rabies wildlife reservoirs but at the same time can favour sustained spill over into wildlife. It was emphasised that the presence of wildlife rabies does not pose a threat for achieving the goal of zero human rabies deaths by 2030. Therefore, it should

be made clear that, reflecting the risk wildlife rabies poses to people and animals, the control and elimination of dog-mediated rabies should precede attempts to eliminate rabies in wildlife reservoir species.

The draft article was endorsed with minor revisions and forwarded to the Code Commission.

4. Ad hoc and Working Groups

4.1. Meeting reports for endorsement

4.1.1. Ad hoc Group on Rift Valley fever: 15–18 June 2021

The Commission was informed that an *ad hoc* Group on Rift Valley Fever was convened to address issues identified in the *Terrestrial Code* Chapter 8.15. These included surveillance and trade recommendations during inter-epizootic periods, notification criteria, recommendation for the recovery of freedom, risk posed by semen, and virus inactivation in milk. The Commission reviewed the changes to the chapter proposed by the *ad hoc* Group and their report, and endorsed the report.

The revised *Terrestrial Code* Chapter 8.15. was forwarded to the Code Commission and the report of the *ad hoc* Group is attached as Annex 5.

4.1.2. Ad hoc Group on surra and dourine: 30 April to 24 June 2021

The Commission was informed that an *ad hoc* Group on surra and dourine was convened to continue the drafting of *Terrestrial Code* Chapter 8.X. ‘Infection with *Trypanosoma evansi* (surra) and progress revisions to *Terrestrial Code* Chapter 12.3. ‘Dourine’.

The Commission reviewed the *ad hoc* Group report and commended the work of the experts, acknowledging the difficulty of the topic. They endorsed the report, but made some modifications in the proposed text. The Commission emphasised that the chapter should provide recommendations only for those commodities that have been identified as causing unjustified trade barriers to safe international trade. In consequence, the Commission removed text prepared on ‘Recommendations for importation of dogs and cats from countries or zones infected with *T. evansi*’, noting that historically, the majority of Members have been importing dogs and cats from such countries without requiring risk management measures for infection with *T. evansi*. The Commission emphasised that absence of recommendations on particular commodities does not preclude the application of appropriate sanitary measures by the Veterinary Authorities, provided they are based on risk analyses conducted in accordance with Section 2 of the *Terrestrial Code*.

The Commission disagreed with the *ad hoc* Group’s recommendation to exclude meat and meat products from the list of safe commodities. The Commission noted that the *Terrestrial Code* Chapter 8.18 ‘Infection with *Trypanosoma brucei*, *T. congolense*, *T. simiae* and *T. vivax*’ (adopted in May 2021) considered meat from animals that have been slaughtered in a slaughterhouse and have been subjected to ante- and post-mortem inspection with favourable results, and meat products, as safe commodities, and did not consider that the risks posed by *T. evansi* differ substantially from those posed by these other trypanosomes. Therefore, the Commission proposed amending the safe commodities list in 8.X.1. to include ‘meat from animals that have been slaughtered in a slaughterhouse and have been subjected to ante- and post-mortem inspection with favourable results’. In addition, the Commission acknowledged a request from International Embryo Technology Society (IETS) to the OIE made in September 2020 to not recommend any risk mitigation measures for the international trade in embryos related to infection with ‘*T. evansi*’, and agreed that embryos collected in accordance with Chapter 4.6 should be considered as safe commodities; in consequence, they removed the draft articles ‘Recommendations for importation of embryos or oocytes of susceptible animals from countries, zones or compartments free from infection with *T. evansi*’ and ‘Recommendations for importation of embryos or oocytes of susceptible animals from countries or zones infected with *T. evansi*’.

The Commission recommended that the *ad hoc* Group's work on the companion *Terrestrial Code* Chapter 12.3 'Dourine' be paused until at least one round of Member comments have been received on this chapter, as these will provide useful guidance to the experts.

Subject to these considerations, the report of the *ad hoc* Group was endorsed and attached as Annex 6, and the amended draft chapter was forwarded to Code Commission for their consideration.

4.1.3. *Ad hoc* Group on the revision of BSE standards and the impact of this revision on the official status recognition: 21, 23, 28–30 June and 1 July 2021

The Commission reviewed the report of the *ad hoc* Group on the revision of BSE standards and the impact of this revision on the official status recognition. The Commission noted that this work was carried out in line with its recommendation and aim to examine at an early stage any potential impact related to the ongoing revision of the BSE standards to ensure Members' maintenance of their BSE risk status after the adoption of the new BSE standards. The Commission commended the comprehensive work conducted by the *ad hoc* Group in accordance with the Terms of Reference of the meeting.

The Commission noted that the *ad hoc* Group could not conclude, based on the information available in the initial dossier submitted at the time of recognition of the official status and the annual reconfirmations submitted since the recognition, whether the exposure risk (i.e., likelihood of recycling and amplification of BSE agent, if it were present in the cattle population) could be considered negligible for seven Members or zones having a negligible BSE risk status, and for one Member having a controlled BSE risk status. The Commission noted that these eight Members would be requested to submit additional information when reconfirming their BSE risk status in November 2021. The Commission agreed that this work will be progressively implemented through request of additional information in November 2021 and continuing to the next annual reconfirmation campaign in November 2022. The Commission underlined that the aim was to prevent any issues on the maintenance of Members' officially recognised BSE risk status once the new standards are adopted.

The Commission agreed on the draft annual reconfirmation form proposed by the *ad hoc* Group. The Commission thought that the draft form captured the relevant points of the revised BSE chapter for Members to demonstrate compliance with the requirements for maintenance of BSE risk status officially recognised by the OIE. The Commission noted that the draft annual reconfirmation form may be further updated in line with the ongoing revision of the BSE chapter.

The Commission also agreed with the approach proposed by the *ad hoc* Group in determining the 'period' or 'starting date' from which the risk of the BSE agents being recycled within the cattle population could be considered negligible. Please refer to items 5.4.1. and 8.1.2. in this report capturing further details on this point.

The Commission was informed that the outputs of the *ad hoc* Group on Members' comments on the revised BSE Chapter were considered by the Code Commission in its September 2021 meeting.

The endorsed report of the *ad hoc* Group is attached as Annex 7.

4.2. Planned *ad hoc* Groups and confirmation of proposed agendas

Considering the situation on COVID-19, the Commission was informed that the following list of *ad hoc* Group meetings would take place virtually. With regard to the *ad hoc* Groups on the evaluation of animal health status and official control programmes for OIE endorsement, the Commission was briefed on the proposed agendas including information on the applications submitted to the OIE so far.

4.2.1. *Ad hoc* Group on the evaluation of AHS status: 5–7 October 2021

4.2.2. *Ad hoc* Group on the evaluation of official control programmes for dog-mediated rabies: 5–7 October 2021 (cancelled due to no applications)

4.2.3. *Ad hoc* Group on the evaluation of CBPP status: 5–7 October 2021

4.2.4. *Ad hoc* Group on the evaluation of FMD status: 18–27 October 2021

4.2.5. *Ad hoc* Group on the evaluation of CSF status: 26, 28 October 2021

4.2.6. *Ad hoc* Group on the evaluation of BSE risk status: 16–19 November 2021

4.2.7. *Ad hoc* Group on the evaluation of PPR status: 7–9 December 2021 (cancelled due to no applications)

4.3. Meeting reports for information

4.3.1. *Ad hoc* Group on COVID-19 and Safe Trade in Animals and Animal Products

The Commission was updated on the work of the *ad hoc* Group on COVID-19¹ and safe trade in animals and animal products considering the risk to human health posed by international trade in mink pelts, which had not been completed at the time of the February meeting. The Commission noted the contents of the report, and that no additional meetings of the *ad hoc* Group have (to date) been required.

4.3.2. Working Group on Antimicrobial Resistance

The Commission was updated on the meeting of the Working Group on Antimicrobial Resistance (AMR) held 6–9 April 2021. Objectives of the meeting included sharing information about activities of Tripartite Work on AMR, Codex Task Force on AMR, and revisions to *Terrestrial Code* Chapter 6.10. The proposed date of the next meeting is 26 to 28 October 2021.

4.3.3. Working Group on Wildlife

The Commission was informed of the meeting of the Working Group on Wildlife held 15–18 June 2021 to support OIE's core mission of transparency and promotion of Veterinary Services. The Working Group developed a template to guide Members in drafting annual regional reports on new and noteworthy disease events in wildlife. In addition, the Commission was informed of the Working Group's recommendation from their December 2020 meeting that the OIE develop a chapter on surveillance of wildlife disease.

¹ <https://www.oie.int/en/what-we-offer/emergency-and-resilience/covid-19/> (accessed on 15 October 2021)

5. Official animal health status

5.1. Maintenance of official animal health status of Members

5.1.1. Selection of status for comprehensive review of 2021 annual reconfirmations

The Commission selected the list of Members' 2021 annual reconfirmations for comprehensive review during its forthcoming meeting in February 2022. The selection was based on a set of criteria described in the SOPs. The Commission will comprehensively review a total of 49 annual reconfirmations during its February 2022 meeting. The Members selected for comprehensive review of their annual reconfirmations will be notified officially by letter from the OIE in October 2021.

5.1.2. Update of annual reconfirmation forms: CSF and PPR free status, endorsed control programme for PPR and dog-mediated rabies

Based on the newly adopted Chapters 14.7. 'Infection with peste des petits ruminants virus' and 15.2. 'Infection with classical swine fever virus' at the last OIE General Session in May 2021, which include the work to harmonise the requirements for official recognition and maintenance of free status, and endorsement and maintenance of official control programmes, the annual reconfirmation forms have been amended accordingly. Likewise, after the first recognition of Members having an OIE endorsed official control programme for dog-mediated rabies, an annual reconfirmation form has been developed for Members to report on their progress along the endorsed programme and maintain the endorsement by the OIE.

The Commission reviewed and endorsed the draft annual reconfirmation forms for CSF and PPR free status, and for an endorsed official control programme for PPR and dog-mediated rabies with minor changes.

The Commission noted that based on these newly adopted provisions, Members having a CSF or PPR free status will be required to submit supportive documents to substantiate their yes/no responses in the annual reconfirmation forms.

5.2. Specific updates on official animal health status

5.2.1. Follow-up of countries having an official status or an endorsed control programme

- *Turkey, FMD free zone where vaccination is practised*

Following the assessment of Turkey's 2020 annual reconfirmation with regard to its FMD-free zone where vaccination is practised at the February 2021 meeting, the Commission requested the submission of further documented evidence regarding the movements and controls of live animals from the FMD-infected zone into the FMD-free zone during the religious ceremony (Kurban Festival), to ensure that the relevant provisions of the *Terrestrial Code* are fully complied with or provide a level of protection that is equivalent.

The Commission noted that based on its last electronic consultation of the information submitted by Turkey in July 2021, Turkey was requested to submit an action plan on the implementation of the recommendations from the Commission. This action plan will be considered by the *ad hoc* Group for the evaluation of Members' FMD status in the forthcoming meeting in October 2021. The Commission also suggested that, following the assessment of the action plan by the *ad hoc* Group, virtual interviews between OIE experts and Turkey be organised, followed by a field mission to verify the implementation of the risk mitigation measures, if possible, before the 2022 Kurban festival.

- *United Kingdom, zone of England and Wales controlled BSE risk status*

During its meeting, the Commission noted the notification of a domestic case of classical BSE in a six-and-a-half-year-old cow in Somerset (England), which is part of the zone of England and Wales of the United Kingdom having a controlled BSE risk status. With reference to this BSE case, the Commission requested additional information to determine whether or not there would be a change in the BSE risk category of the zone having an official status recognised by the OIE. In accordance with the established procedures, the Commission member having United Kingdom nationality withdrew from the meeting during these discussions.

5.3. State of play and prioritisation of Expert missions to Members requested by the Commission

Due to the ongoing situation with COVID-19, no missions had been deployed since January 2020. The Commission reviewed and maintained its list of priority missions. Until the sanitary situation would allow in-country missions to take place, the Commission agreed to closely monitor certain Members' animal health situation through the annual reconfirmation campaign and, when considered relevant and necessary, to use virtual interviews as an alternative or adjunct option on a case-by-case basis.

The Commission noted that, upon analysis of the pros and cons, the option of virtual interviews had been added to the OIE Standard Operating Procedures on official recognition of animal health status and endorsement of official control programmes (Mission_SOP).

5.4. Standards related to official status recognition

5.4.1. Transition plan with regard to the revision of Chapter 11.4. ‘Bovine spongiform encephalopathy’ and official BSE risk status

The Commission reviewed a draft transition proposal with regard to the potential adoption of the revised Chapter 11.4. Bovine spongiform encephalopathy and potential impact on Member having official BSE risk status by the OIE. Based on the points highlighted during the preparatory meeting between the Commission and the Code Commission (see item 8.1.2. of this report), this proposal describes the areas that would require preparation or follow-up work by the Commission, with the assistance of the OIE Status Department, in relation to the maintenance of Members' official BSE risk status.

- Impact that the revised BSE provisions may have on the already recognised BSE risk status

With reference to the recommendations of the *ad hoc* Group on the revision of BSE standards and the impact of this revision on the official status recognition (see item 4.1.3.), the Commission agreed that this work will be progressively implemented through request of additional information to those Members that may be potentially impacted, in the upcoming 2021 annual reconfirmation campaign and continuing to the next in November 2022.

- Period (or ‘starting date’) when the risk of the BSE agents being recycled within the cattle population has been demonstrated to be negligible

The Commission noted that Members had expressed concerns about how the ‘period when the risk of the BSE agents being recycled in the cattle population has been demonstrated to be negligible’ (or a ‘starting date’) would be defined and how this period would be made publicly available, as it should be known to fulfil the new recommendations for importation of live animals and other commodities.

The Commission discussed in-depth different options to respond to this concern of Members and recommended that the OIE publish the year of the OIE General Session when each Member or zone have been granted the official BSE risk status on the OIE website. Based on the approach proposed by the *ad hoc* Group, the starting year (of effective implementation of BSE risk mitigation measures) would be:

- For Members and zones with negligible BSE risk status: at least eight years prior to the year of official recognition by the OIE, and
- For Members and zones with a controlled BSE risk status: at least from the year of official recognition by the OIE.

The Commission agreed that this starting date could be longer than the aforesaid year in relation to the official recognition of the risk status by the OIE, but it would be up to the Member to demonstrate this to its trading partners in bilateral discussions.

Nevertheless, the Commission proposed to provide the criteria that could be used in determining the ‘starting date’ in case a Member wishes to demonstrate that the effective implementation of the measures were earlier than those in relation to the year of OIE recognition. In this regard, the Commission proposed to the Director General that this item is included in the Terms of Reference of the upcoming meeting of the BSE *ad hoc* Group on evaluation of Members status to be held in November 2021, so that the Commission could review the outcome at its next meeting in February 2022.

- **Level of surveillance required to maintain the BSE risk status**

Considering the termination of a points-based surveillance system, some Members had raised concerns as to what level of surveillance will be considered appropriate in maintaining the BSE risk status.

The Commission was of the opinion that the annual reconfirmation form drafted by the *ad hoc* Group on the revision of BSE standards and the impact of this revision on the official status recognition (see item 4.1.3.) provided an adequate template for Members to report on the level of surveillance for BSE. The Commission recommended the OIE to develop guidelines on BSE surveillance to help Members to revise their surveillance programmes in accordance with the new BSE standards.

Considering the aforesaid recommendations, the way forward to address them, and the high workload that it would involve, the Commission proposed to convene meetings of *ad hoc* Group(s) as necessary to make progress in line with the timeline for potential adoption of the revised BSE standards.

6. Global control and eradication strategies

6.1. Foot and mouth disease: Global Control Strategy

The Commission was updated on the activities to advance the various FMD Regional roadmaps that have been conducted since its previous meeting in February 2021 in the framework of the Global FMD Control Strategy under the GF-TADs.

In response to challenges faced by Members in developing their FMD Plans which are a prerequisite for advancement along the PCP-FMD, a virtual workshop on FMD strategic plans and PCP for Members in the Arab Organization for Agricultural Development (AOAD) took place in June 2021. Participants

were updated on the PCP guidelines and the requirements from the PCP to the OIE status recognition among others.

The Commission was informed of the outcomes of the 24th SEACFMD National Coordinators meeting that was convened virtually in July 2021. Updates of the FMD situation in the region were provided. Members' PCP stage were not assessed or monitored this year as the focus was on the regional and country level implementation Plans for the SEACFMD Roadmap 2021-2025. The technical session covered practical application of FMD vaccination and access to quality FMD vaccines. First findings of a survey completed by all Members on the FMD vaccines used in the region and on concrete implementation of vaccination were shared. A more detailed report will be shared.

The 3rd FMD Epidemiology and Laboratory Networks Meeting for West Eurasia (FMD virus pool 3), has been successfully held in August 2021 and only one Member out of the 12 did not participate. Key messages were (i) the introduction of two exotic FMD virus lineages from Pool 2 comprising A/ASIA/G-VII (in 2015) and O/ME-SA/Ind-2001e, where the latter is expanding its geographical range, (ii) diverse range of FMD vaccines and vaccine strains used in the region and (iii) challenges on laboratory testing and sample shipment to Reference Laboratories which have been compounded by COVID-19 pandemic restrictions. The biennial workplans for the two networks were developed taking consideration of the regional priorities and capacity building needs. The report will be published on the GF-TADs website.

The Commission appreciated the addition of bilateral virtual meetings by the FMD WG to provide feedback and recommendations to Members on their FMD plans which should quicken the process and progression of Members along the PCP-FMD. Two bilateral meetings with Members from the Africa Region have been held. One Member in Europe Region was recommended to be accepted to PCP Stage 3 based on their Official Control Programme (OCP).

The Commission was updated on the progress on the planning of the various regional meetings for the remainder of the year and first semester 2022 for SAARC, West Africa, East Africa and Middle East Regions, the Global coordination Committee for FMD and the review of the Global FMD Control Strategy. The Commission appreciated the brief update on the initiative to formulate joint OIE/ FAO taskforce under the GF-TADs to spearhead the development of the FMD serotype C strategy and requested to be kept informed.

The Commission acknowledged the update on the FMD serotype O/EA situation which is of great concern in southern Africa, and the regional activities by SADC in collaboration with OIE, FAO and other partners in controlling the disease. The Commission recommended that the region gives this a high priority and implement the recommendations of their 2020 meetings to ensure the serotype does not spread further and establish in the sub region and threatening the OIE official statuses of FMD free Members and zones.

6.2. Peste des petit ruminants: Global Control and Eradication Strategy

The Commission was informed on the recent activities of the PPR Global Control and Eradication Strategy (GCES).

The Commission was updated on the progress achieved by the OIE/FAO expert team undertaking the in-depth review process of the PPR Monitoring and Assessment Tool (PMAT). In March 2021, a training webinar for Arab Organisation for Agricultural Development (AOAD) countries was organised to pilot the draft revised PMAT and in June 2021, a stakeholder workshop was held to present the revised tool and framework for a final round of consultation. Based on the feedback received during these two meetings, the expert team was in the process of finalising the revised PMAT.

The Commission was informed that at the beginning of 2021, the revision of the PPR Global Eradication Programme (GEP) was initiated for the formulation of its second phase. In this regard, a joint FAO/OIE Core Expert Team (CET) was convened to undertake the formulation and drafting of the second phase of the GEP jointly with the PPR Secretariat. In order to consider the views of all stakeholders in the revision process, virtual regional/epizone consultation meetings will be held in each region/epizone. So far, three regional consultation meetings have already taken place, i.e., for Middle East, West Africa and Central Africa in April, July and August 2021 respectively. Until November 2021, five more meetings are envisaged to be organised, namely for Southern Africa, Northern Africa, Eastern Africa, Economic Cooperation Organisation (ECO) countries plus Russia, China and Mongolia, and Southern Asia.

In addition, in August 2021, the co-publication titled “FAO/OIE Guidelines for the Control and Prevention of PPR in Wildlife Populations” has been published [on the OIE website](#).

The Commission was also made aware of the activities achieved under the OIE Action plan in support of the PPR GEP. In January 2021, a new OIE PPR Laboratory Twinning project was launched between Senegal and CIRAD. Moreover, following the launch of the OIE PPR Laboratory Network in 2020, the network has finalised the first list of members with national laboratories, which have confirmed their interest to be part of the network. The first workshop of the network is planned to take place in November 2021. Finally, in June 2021, a Selection Committee composed of OIE and external experts was convened to evaluate tenders received in response to the international call for tender for the selection of the vaccine manufacturers which will supply the OIE PPR Vaccine Bank for at least the next four years (2022-2025). Two manufacturers, which provided the most robust offers both technically and financially have been selected. The OIE should be able to provide a thermotolerant PPR vaccine in the future through its Vaccine Bank mechanism. The Commission was informed that the OIE would start contract negotiations with these two manufactures in September 2021 in order to sign contracts with them by the end of 2021.

6.3. Rabies: Global Strategic Plan to End Human Deaths from Dog-Mediated Rabies ('Zero by 30')

The Commission was informed that following the establishment of the United Against Rabies (UAR) Forum in September 2020, Working Group 1 (entitled ‘Effective use of vaccines, medicines, tools and technologies’) and Working Group 2 (entitled ‘Strategic and operational support’) have been established and are progressing priority activities.

Key activities of Working Group 1 include identifying minimum data elements to help countries strengthen surveillance systems and evaluating existing tools to provide guidance to countries on how to select and adapt these for national control programmes. This group also plans to map existing rabies activities to facilitate coordination and assist stakeholders in assessing progress and identifying gaps.

Working Group 2 is focused on building One Health approaches and capacity, and promoting integrated country and regional strategies. This group has already developed a National Strategic Plan template to help countries develop their own country tailored plan and is progressing with the development of a monitoring and evaluation framework and a roadmap that provides guidance to countries as they progress towards elimination of dog-mediated rabies. This group is also working to identify the main constraints that prevent countries from progressing towards elimination, in order to propose solutions that help countries in overcoming these.

The Working Groups will provide updates on their activities and progress to the wider rabies community in the second UAR Forum Stakeholder event which will consist of three virtual webinars, taking place on 27 September, 4 October, and 11 October 2021. These webinars will also allow stakeholders to identify priority activities for the UAR Forum to progress in the coming 12 months.

A third Working Group entitled ‘Case for Investment’ will be established soon and will focus on building advocacy and resource mobilisation strategies. The UAR Forum website (under development) will provide a central platform where stakeholders can easily access key resources while fostering

networks and relationships for the sharing of knowledge and experience to collectively overcome the challenges of achieving rabies elimination.

6.4. African swine fever: Global control initiative

The Commission noted the activities conducted under the joint initiative for the global control of African Swine Fever (ASF) since February 2021. Since the last Commission meeting, a regional Standing Groups of Experts (SGEs) meeting was organised in Europe, and a virtual coordination meeting was held in Asia on biosecurity and communication. Notably, an online event entitled *Stop ASF: Public and private partnering for success* was held in June 2021.

The Commission also commended the effort of OIE and FAO to establish the SGE in Africa and the progress in developing a monitoring and evaluation framework (M&E) for the Global initiative.

The first annual report of the global initiative was also published in June 2021, highlighting progress made and showcasing some of the activities achieved in 2020 in support of the three objectives of the Global Initiative.

The Commission took note of the activities of the ASF Working Group in supporting the response to the incursion of ASF in the Americas (See section 10.4)

7. OIE Collaborating Centres

8. Liaison with other Commissions and Departments

8.1. Terrestrial Animal Health Standard Commission

8.1.1. Taskforce on Chapter 8.8. ‘Infection with foot and mouth disease virus’

Between June and August 2021, a second meeting of the joint taskforce between the Commission and the Code Commission was convened to address the implications of introducing vaccinated animals into an FMD-free country (or zone) where vaccination is not practised (not for direct slaughter), develop an article on the establishment of a protection zone in line with recently adopted Article 4.4.6. and to address the incursion of African buffalo (*Syncerus caffer*) into an FMD-free country (or zone).

The discussions and conclusions with regard to the three items are summarised below.

a) Implications of introducing vaccinated animals into an FMD-free country (or zone) where vaccination is not practised (not for direct slaughter):

At its February 2021 meeting, the Commission raised on a concern on point 4 e) of draft revised Article 8.8.2. allowing the importation of vaccinated animals (not destined for slaughter) according to Article 8.8.11., as this would bring implications to surveillance and the demonstration of absence of FMDV infection.

The taskforce agreed that the provisions in the draft revised Articles 8.8.11. and 8.8.12. would provide the necessary assurances for the safe trade of vaccinated animals into an FMD-free country or zone where vaccination is not practised.

The taskforce drafted a concept note examining the implications of introducing vaccinated animals into an FMD free country or zone where vaccination is not practised. The paper describes i) the recommendations for safe importation of vaccinated animals into a country or zone free from FMD where vaccination is not practised; ii) the impact on traceability and surveillance for demonstrating absence of FMDV infection/transmission; and iii) implications on the OIE’s official animal health status recognition and maintenance procedure. The aforesaid concept note is attached as Annex 8.

The Commission recommended that this concept note be taken into account when Members review the draft revised Chapter 8.8. on infection with FMD virus as part of the Code Commission September 2021 meeting report.

b) Draft article on the establishment of a protection zone in line with Article 4.4.6. which was adopted in May 2021:

For the containment zone, provisions are described in the horizontal Chapter 4.4. on Zoning and compartmentalisation (Article 4.4.7.) as well as in the specific chapter (Article 8.8.6. of the FMD Chapter). While addressing Member comments in February 2021, the Commission raised the potential need and benefit for having a separate article in the FMD Chapter that would describe the provisions for the establishment of a protection zone and the consequences of applying vaccination (in a country or zone free from FMD where vaccination is not practised) or of an outbreak, as well as provisions for recovery or removal of the protection zone.

The taskforce reviewed a draft proposal of article 8.8.5bis. on the establishment of a protection zone, as per the modifications of Article 4.4.6. adopted during the 88th OIE General Session in May 2021, and made some amendments to improve clarity and readability. The taskforce acknowledged that the structure of draft article 8.8.5bis was based on Article 8.8.6. on the establishment of a containment zone. The taskforce agreed that the list of points, describing the areas for which documented evidence should be submitted to the OIE, should be kept in addition to the reference made to Article 4.4.6. The taskforce also agreed that this article should describe the consequences of applying vaccination (in a country or zone free from FMD where vaccination is not practised) or of an outbreak, as well as provisions for recovery or removal of a previously established protection zone. The taskforce discussed the scenario in which a Member's 'FMD-free without vaccination status' of the protection zone would be suspended due the implementation of vaccination. If a Member wishes to recover the FMD-free status of the protection zone while maintaining vaccination, it should follow draft article 8.8.3bis Transition of vaccination status in a country or zone free from FMD; this change of vaccination status should be subjected to approval by the World Assembly according to the current procedures adopted through resolution.

The Commission reviewed and endorsed the draft proposal of article 8.8.5bis by the taskforce.

c) Management of incursion of African buffalo:

In line with the updated concept of the protection zone (adopted in May 2021), the Commission's opinion was that the provisions for the management of incursion of African buffalo should be reconsidered. The current draft text in the penultimate paragraph of Article 8.8.2 requires Members to establish a protection zone in the case of an incursion of stray African buffalo. The newly adopted Article 4.4.6 requires approval by the OIE before a protection zone is considered effectively established. Therefore, this implies that an application for the establishment of a protection zone would have to be submitted for approval by the Commission each time an incursion of African buffalo occurs, and subsequently the approval of the Commission for the lifting of the protection zone, potentially soon after.

The taskforce drafted provisions on how a country or zone free from FMD could maintain its free status despite an incursion of African buffalo from a neighbouring infected country or zone. The underlying logic followed in drafting of these provisions was that the Member should either demonstrate that the African buffalo had no contact with other susceptible animals or demonstrate absence of FMDV in the African buffalo through laboratory testing. In case neither can be demonstrated, surveillance should be conducted within two incubation periods in all potential in-contact animals and has demonstrated the absence of FMDV infection. Documented evidence demonstrating compliance with these provisions should be submitted to the OIE for approval by the Scientific Commission.

The taskforce was of the opinion that free countries or zones neighbouring areas with infected African buffaloes should not be penalised in case of incursion of a group of potentially infected African buffaloes that would not readily transmit FMD to domestic population, provided that the Veterinary Authority takes appropriate measures to prevent the spread of the disease and provides documented evidence that a comprehensive investigation was conducted to rule out virus transmission within a limited timeframe. The taskforce also considered whether similar provisions would apply to other wild susceptible species. However, due to the difficulties to readily detect incursions of wild susceptible animals from neighbouring infected countries or zones and to maintain effective separation between wildlife and domestic populations considering the range of susceptible population that may be farmed outdoors, it concluded that these provisions be targeted only to African buffalo, based on its specific role in the epidemiology of FMD.

The Commission was of the opinion that until these conditions are complied with exporting countries should suspend exports of potentially in-contact animals and derived commodities whose certification could have been compromised. The Commission noted that it was already the case that most countries suspend exports today when African buffalo incursions occur.

8.1.2. Preparatory meeting on Chapter 11.4. ‘Bovine spongiform encephalopathy’

In February 2018, the Commission and the Code Commission agreed on an in-depth review of Chapter 11.4, Bovine spongiform encephalopathy (BSE). Three different *ad hoc* Groups conducted this task (on BSE risk assessment, on BSE surveillance) and followed by a joint Group of these two. The revised chapter was circulated for comments for the first time in September 2019.

The joint *ad hoc* Group was reconvened in June 2020 to address some comments and review the draft revisions for Chapter 1.8, Application for official recognition by the OIE of risk status for bovine spongiform encephalopathy.

The revised Chapters 11.4 and 1.8 were further circulated for comments in September 2020 and February 2021.

An *ad hoc* Group met in June-July 2021 to assess the impact of the revised provisions on the Members having an officially recognised BSE risk status and address some comments referred by the Code Commission in February 2021.

Considering a potential proposal of Chapters 11.4 and 1.8 for adoption in 2022 and the Member Comments on these revised Chapters submitted to the OIE after the last circulation in February 2021, this preparatory meeting took place on 3 September 2021 (prior to the start of both Commissions meetings) to ensure a common understanding of the main concerns raised by Members, the decisions made on the revised chapter and their impact on the official status recognition, as well as on the adapted procedures that will be required.

The main objective is to provide Members with a clear view of the full implications of the proposed changes through both Commission’s September meeting reports, in anticipation of the potential decision to be taken next February regarding the proposal of these chapters for adoption.

Please refer to item 5.4.1. regarding the points that were agreed to be addressed by the Commission, its discussion and the proposed plan forward.

8.2. Biological Standards Commission

8.2.1. Inconsistency between Code and Manual in definition of infection with foot and mouth disease virus

The Commission considered the opinion of Biological Standards Commission on an inconsistency identified by experts on the definition of infection with foot and mouth disease virus (FMDV) in the *Terrestrial Code* and the *Terrestrial Manual*. The Commission considered that although the existing Article 8.8.1. 3) a) text stating ‘FMDV has been isolated from a sample from an animal listed in point 2)’ could imply that steps had been taken to confirm the identity of the isolated virus as being FMDV, this should be made more explicit. The Commission recommended that the Code Commission revise this text accordingly, e.g. to ‘FMDV has been isolated and characterised from a sample from an animal listed in point 2)’. The Commission did not agree with Biological Standards recommendation to merge point 1) into point 2) and considered the issue (that the identity of the virus should be confirmed) would be resolved by the proposed amendment to 1). Further, the Commission noted that the *Terrestrial Manual* Article 1.1. of Chapter 3.1.8 on virus isolation does not mention viral characterisation, and recommended that Biological Standards Commission consider adding this to the article.

9. Conferences, workshops, meetings, missions

9.1. Stop ASF: Public and private partnering for success. Webinar series conducted 14–28 June 2021

The Commission was informed about the online event *Stop ASF: Public and private partnering for success* organised by the OIE and FAO between 14 and 28 June 2021. The objectives of the event were to understand the impact of African swine fever (ASF), to identify the needs and common ground of all stakeholders, and to show how public and private partnering for success (PPPs) can support the control of ASF.

9.2. Standing Group of Experts on African Swine Fever of the GF-TADs for the Americas, meetings 29 and 30 July 2021

The Commission took note of the meetings of the Standing Group of Experts on African Swine Fever of the GF-TADs for the Americas held as a matter of urgency to provide updates on the ASF disease event in the Dominican Republic and to coordinate actions within the GF-TADs framework.

9.3. Lumpy skin disease (LSD) coordination meeting for South-East Asia, 11 June 2021

The Commission was informed about the lumpy skin disease (LSD) meeting for South-East Asia held on 11 June 2021. The major objectives of the meeting were to provide an update on the LSD situation in South-East Asia region, an update on the preparedness of the countries at risk of LSD incursion, a platform for Members to discuss various issues related to LSD prevention and control, a platform for technical discussions on LSD prevention and control measures for their practical implementation in the field, and to share tools and resources made available by FAO and the OIE for LSD prevention and control.

10. Disease control specific issues

10.1. Evaluation of pathogenic agent against listing criteria of *Terrestrial Code* Chapter 1.2.

10.1.1. Consideration of request and determination of way forward (SOP 3.1-2)

10.1.1.1. Infestation of honey bees with *Acarapis woodi*

The Commission was provided with an update on the epidemiological situation of *Acarapis woodi*. They were advised that the disease is still reported to WAHIS by some Members, but that the severity of the problem worldwide appears to have been reduced by widespread treatment for *Varroa* mite, which also is effective against acarapisosis. Noting this, the Commission referred the (de)listing assessment to subject-matter experts to conduct via electronic consultation (SOP 3.2).

10.1.1.2. Infestation of honey bees with *Tropilaelaps* spp.

The Commission was provided with an update on the epidemiological situation of *Tropilaelaps* spp., focused on South-East Asia. The Commission noted that the geographical distribution of the parasite may be increasing in the region, extending beyond that of its traditional host (the giant honey bee, *Apis dorsata*), and that it may now be infesting colonies of the European honey bee, *Apis mellifera*. Given this, the Commission referred the (de)listing assessment to subject-matter experts to conduct via electronic consultation (SOP 3.2), and suggested that the same experts sourced for the assessment of *Acarapis woodi* might also be requested to consider *Tropilaelaps* spp.

10.1.1.3. Strangles (infection with *Streptococcus equi*)

The Commission was informed of the request made to the OIE in March 2021 by an OIE Reference Laboratory for the assessment of the pathogenic agent *Streptococcus equi* (strangles) against the criteria in Chapter 1.2. of the *Terrestrial Code* for inclusion in Chapter 1.3. The Commission noted the supporting information provided and agreed that the assessment should be progressed by subject-matter experts via electronic consultation (SOP 3.2).

10.1.2. Consideration of expert consultation report and BSC opinion (SOP 3.2-8)

10.1.2.1. Paratuberculosis

The Commission reviewed the collated expert consultation report for paratuberculosis prepared according to SOP 3.2, and noted the opinion of the Biological Standards Commission, who at their September 2021 meeting had concurred with the assessment of the subject-matter experts that criterion 3 of Article 1.2.2. was satisfied (that ‘reliable means of detection and diagnosis exist, a precise case definition is available to clearly identify cases and allow them to be distinguished from other diseases, infections or infestations’).

The Commission observed that the subject-matter experts had difficulty with assessing criterion 2 (‘at least one country has demonstrated freedom or impending freedom from the disease, infection or infestation in populations of susceptible animals, based on the provisions of Chapter 1.4.’). The experts generally agreed that paratuberculosis is present worldwide in countries with significant cattle populations, but nevertheless cited the example of one country, Sweden, which considers that, if present at all, the prevalence of paratuberculosis in Swedish ruminants remains at a very low level. However, the Commission noted that the European Food Safety Authority (EFSA Journal 2017;15(7):4960) disagrees with Sweden’s self-assessment.

The Commission was concerned that a strict application of criterion 2 (perhaps to a small, isolated country with a negligible population of the susceptible but specific pathogen-free species) could result in a pathogen being added to, or maintained on, the OIE list in Chapter 1.3. when such a case of freedom (if confirmed) was exceptional. Consequently, the Commission elected to request further clarification on this matter (SOP 3.2-8 ii). In addition, the Commission noted comments from experts about the practical application for international trade of the diagnostic tests for paratuberculosis, and requested that Biological Standards Commission seek input on Table 1 of Chapter 3.1.15 of the *Terrestrial Manual* from this perspective.

The Commission agreed to consider the results of the expert consultation at its February 2022 meeting.

10.1.2.2. West Nile fever

The Commission reviewed the collated expert consultation report for West Nile fever prepared according to SOP 3.2, and noted the opinion of the Biological Standards Commission, who at their September 2021 meeting had concurred with the assessment of the subject-matter experts that criterion 3 of Article 1.2.2.

The Commission agreed with the subject-matter experts who were unanimous in their assessments against all criteria, and concluded that West Nile fever meets the criteria for listing and so should be maintained on the OIE list in *Terrestrial Code* Chapter 1.3.

This conclusion and the assessment were forwarded to the Code Commission, and the assessment appended to this report (Annex 9).

10.2. Progress of the work on case definitions

10.2.1. Process, confirmation of proposal for next tranche of diseases

The Commission was informed of the proposed next tranche of diseases proposed for development of case definitions, and advised that the list had been revised to accommodate updated priorities provided by the OIE's World Animal Health Information and Analysis Department. The Commission requested that rabbit haemorrhagic disease be added to this tranche, in accordance with their discussions on agenda item 10.3. Consequently, the next tranche comprises Q fever, turkey rhinotracheitis, camelpox, Nairobi sheep disease, salmonellosis (*S. abortusovis*), New World Screwworm, Old World Screwworm, and rabbit haemorrhagic disease.

The Commission noted the revised process outlined for developing the case definitions, and commended the reporting template developed to better capture and justify the scientific rationale supporting the case definition elements. The Commission reviewed the model case definition template provided to experts, and adjusted it to ensure that, where virus isolation forms part of the case definition, it should be both isolated and characterised, in accordance with their earlier discussion of this point (agenda item 8.2.1.).

10.2.2. Diseases

10.2.2.1. Nipah virus encephalitis

The Commission reviewed the report including the draft case definition for Nipah virus encephalitis prepared by an expert group, and took note of Biological Standards Commission opinion on the case definition.

The Commission commended the work of the experts and endorsed their report; however, they made amendments to the draft case definition. The Commission agreed with Biological Standard Commission's opinion that the case definition should reflect

the modifications proposed for foot and mouth disease (agenda item 8.2.1.), and considered that it should be consistent with the updated case definition template (agenda item 10.2.1.). In consequence, they added the requirement that the isolated virus be characterised (as Nipah virus) to the first option for defining a confirmed case of infection with Nipah virus. The Commission also agreed with Biological Standard Commission's opinion that evidence of active infection detected by seroconversion would constitute a confirmed case, so the third option provided was updated to reflect this. However, the Commission also considered that, under specific circumstances (either the animal host is epidemiologically linked to a confirmed case of Nipah virus encephalitis, OR there is cause to suspect that the host has previously been associated or had contact with Nipah virus) detection of antibodies specific to Nipah virus (that are not the consequence of vaccination) in samples from an animal host would constitute a confirmed case, and this was included as a fourth option.

The Commission emphasised the need for experts to routinely consider inclusion in the case definition (where relevant) of the supporting evidence of 'there is cause to suspect that the host has previously been associated or had contact with [the pathogen]'. They noted that there may be occasions where an epidemiological link might not be possible to demonstrate or document, yet it may be strongly suspected. For example, illegal (and thus undeclared) movements of animals might make an epidemiological link impossible to verify when confirming a case of a disease yet contact of an animal with the disease might be suspected if there is an outbreak of the disease elsewhere.

The report of the expert group is attached as Annex 10.

10.2.2.2. Bovine viral diarrhoea

The Commission reviewed the report including the draft case definition for bovine viral diarrhoea prepared by an expert group and took note of Biological Standards Commission opinion on the case definition.

The Commission commended the work of the experts. However, they disagreed with the wording used in the second sentence of section 2.3. 'The experts agreed that wildlife do not play any significant role in the epidemiology of the infection.' and noted that this would be better expressed as 'There is no evidence that wildlife plays a significant role in the epidemiology of the infection.'

The Commission agreed with Biological Standards Commission on the need to ensure that isolated viruses are characterised but did not agree with their recommendation to combine the two options provided for confirmation of a confirmed case into a single item. In consequence, they added 'and characterise' to the first option; this is consistent with the modifications proposed for foot and mouth disease (agenda item 8.2.1.), the updated case definition template (agenda item 10.2.1.), and the amended case definition for Nipah virus encephalitis (agenda item 10.2.2.1.). The Commission proposed replacing the use of 'bovine viral diarrhoea viruses' with 'bovine pestiviruses' in the case definition as a collective term for bovine viral diarrhoea virus type 1 (pestivirus A), type 2 (pestivirus B), and Hobi-like pestiviruses (bovine viral diarrhoea virus type 3 (pestivirus H).

The Commission commented on the requirement included in this case definition (which appears in case definitions for infections with other pathogens, and in the generic template, for use where applicable) on the need to exclude vaccine strains before confirming a case of infection with the pathogen. They requested that future reports of the development of case definitions that include this provision also include confirmation that excluding vaccine strains is both possible and practical. The Commission noted that the details of the methodology to do so would not form part of the case definition but could appear in the *Terrestrial Manual*.

The endorsed report of the expert group is attached as Annex11.

10.3. Rabbit haemorrhagic disease

An update was provided to the Commission on the epidemiological situation of rabbit haemorrhagic disease between 2010 and 2021. The Commission noted that the proportion of Members reporting to OIE-WAHIS that rabbit haemorrhagic disease (RHD) is present has remained relatively stable (averaging 0.2 per year) during this period; however, an increase in the number of outbreaks reported (and the numbers of reports themselves) have been observed since 2015, with the largest increase in 2020, due mainly to a large RHD event occurring in USA and Mexico.

The Commission noted that the *Terrestrial Code* Chapter 13.2. ‘Rabbit haemorrhagic disease’ was last updated in 2012 and contains neither a case definition nor provisions for recovery of free status. They observed that, in the absence of a case definition, it is not clear to Members which strains of the virus should be reported.

The Commission recommended that Code Commission add the revision of Chapter 13.2 to their work programme, and that rabbit haemorrhagic disease be added to the next tranche of the case definition work, so that its case definition would be available for inclusion in the updated chapter and would in the interim provide guidance to Members regarding notification of this disease to OIE-WAHIS.

10.4. African swine fever in the Dominican Republic and Haiti (update)

The Commission was updated about the ongoing situation of ASF in the Dominican Republic and Haiti. At the time, outbreaks in the Dominican Republic seemed to be mostly reported in backyard and fattening farms, the first notification of an outbreak in Haiti had been received by the OIE, and the United States had declared a protection zone for ASF in Puerto Rico and the U.S. Virgin Islands. Current information about genome sequences and the limitation in the analyses due to the low number of publicly available and harmonised full genome sequences of ASF virus were discussed. The difficulties of understanding the source of the outbreaks were noted.

10.5. Lumpy skin disease (update)

The Commission took note of a recent description of the characterisation of lumpy skin disease virus wild-, vaccine-, and goatpox-like sequences in the vaccine vial and in samples taken from animals vaccinated with a commercial lumpy skin disease vaccine². The Commission emphasised the importance of using high quality vaccines and discussed the need for ongoing and independent quality control in the production of vaccines, particularly where live attenuated vaccines are used for control of animal diseases. While the *Terrestrial Manual* describes certain broad characteristics of the vaccines, there is a need for establishing systems that define and monitor clear criteria and specifications to be fulfilled for recommended vaccines, in terms of their identity, efficacy, safety and quality. The Commission acknowledged that a process for pre-qualification of FMD vaccines has been initiated by the EuFMD. The Commission recommended that a similar approach could be taken for other critical animal diseases and also cover the definition of key characteristics for these vaccines (Target Product Profile³). This process should be conducted in conjunction with the Biological Standards Commission.

11. For Commission information

11.1. Update on OFFLU

The Commission was updated on OFFLU’s contribution to the WHO Consultation on the composition of influenza virus vaccines on avian influenza (AI) and swine influenza (SI) for the period September 2020 to February 2021 was as follows: data for 43 H5 and 13 H9 genetic sequences were contributed by animal health laboratories in countries representing Europe, Asia, Africa, Oceania, and the Americas to which 150 H5 and 3 H9 sequences from online resources were also added. Additionally, 504 swine

² <https://doi.org/10.3390/vaccines9091019> (accessed on 15 October 2021)

³ <https://www.who.int/observatories/global-observatory-on-health-research-and-development/analyses-and-syntheses/target-product-profile/who-target-product-profiles> (accessed on 8 October 2021)

H1 and 174 swine H3 global swine influenza A virus sequences from the reporting period were analysed along with 32 genetic clades of H1 and H3 and antigenic analyses was submitted. These data were used by WHO to update the candidate vaccine viruses for production of human vaccines against zoonotic viruses of concern. Results of data collection and analysis for the February to September 2021 period will be presented at the meeting to be held at the end of September 2021.

The Commission was informed that the OFFLU Steering and Executive Committee met virtually in July 2021 to review the progress in the work plan of OFFLU technical activities and the OFFLU annual report 2020 was published on the website and disseminated widely.

11.2. Update on the SIRCAH STAR-IDAZ International Research Consortium

The Commission was updated on the recent activities performed by the STAR-IDAZ International Research Consortium on Animal Health (IRC) and by its Secretariat (SIRCAH), which is co-hosted by the OIE.

In the last six months the IRC Executive Committee met twice to update members on the status of the STAR-IDAZ Network and discuss coordination activities relating to coronavirus research, emerging issues, ASF, helminths, vaccinology, influenza, and alternatives to antibiotics (ATA).

Three regional virtual meetings took place in the last semester: Africa and Middle East on the 22 March, Americas on the 17 May and Asia and Australasia on the 22 June. During the meeting regional members were updated on the current status and activities of the Regional Networks, common research priorities on One Health were discussed and agreed, opportunities for sharing resources, including access to samples and strains organism, specialised facilities and expertise were explored as well as international funding opportunity.

In the last semester, two Scientific Committee virtual meetings took place, on 15 March and 14 June, to discuss activities of the Working Groups (WGs) on the current priorities. Despite delays due to COVID-19 restrictions, the WGs and affiliated experts continued their networking activities delivering outputs on lead summaries and roadmaps, particularly on vector transmission control and helminths. Highlights include a review on animal influenza research to help identify knowledge gaps needing to be addressed to deliver improved disease control, a vaccinology survey that has been circulated through the International Vaccinology Network, and a research review currently being conducted on vaccine platform technology.

11.3. Update on the OIE Collaborating Centre for Good Beekeeping Management Practices and Biosecurity Measures in the Apiculture Sector

The Commission was informed that the OIE World Assembly of Delegates, at the 88th General Session held in May 2021, designated the Istituto Zooprofilattico Sperimentale delle Regioni Lazio e Toscana ‘M. Aleandri’, via Appia, Italy as the ‘OIE Collaborating Centre for Good Beekeeping Management Practices and Biosecurity Measures in the Apiculture Sector’ (Resolution no: 29). The Commission was updated on the main activities of the centre within the focus areas of the OIE CC and that the contact details of the centre are available on OIE website among the list of OIE Collaborating Centres.

11.4. Update on the Global Burden of Animal Diseases programme (GBADS) and the OIE Collaborating Centre for the Economics of Animal Health

The Commission was informed that in May 2021 at the 88th General Session the OIE World Assembly of Delegates approved the University of Liverpool together with Utrecht University and the Norwegian Veterinary Institute as the first OIE Collaborating Centre for the Economics of Animal Health. This Collaborating Centre will operate in the European region while also supporting the development of similar consortia in other regions, notably in Africa and the Asia Pacific linking with Global Burden of Animal Diseases programme’s (GBADS) case study implementation partners in Ethiopia and Indonesia respectively.

The Commission was updated on the main activities of GBADS to assess the economic burden of animal diseases in standardised terms of production loss, expenditure, and trade impacts. GBADS is currently developing methodologies and a prototype analytics platform. A peer review of the programme's methodology following OIE processes is planned for the second half of 2022.

As a basis for the analytical framework GBADS is considering populations, biomass and value of livestock and aquatic animals, building on existing animal health ontologies to ensure that data resources are organized into meaningful categories and estimating and benchmarking differences between current level of productions and those in absence of diseases. An interactive dashboard is in development for the dissemination of information.

12. International trade of insects: potential impact on animal health

The Commission was presented with a preliminary assessment done by OIE headquarters on the potential impact of international trade of insect on animal health. The assessment included literature review and an online survey across two main workstreams: i) safe international trade due to the potential of insects transmitting livestock or human diseases, and ii) safe international trade due to the potential of insects transmitting insect diseases. The Commission noted that the international trade of insects involves a variety of stakeholders and appears to be steadily growing, both in terms of geographical distribution and trade volumes. Despite the potential risks that these insects could pose to public and animal health, there is a lack of internationally recognised guidance, including certification and shipping requirements.

The Commission supported that OIE explores a role for the OIE in the standard setting for the international trade of insects related to safety for animal health, taking into consideration the work that may already have been conducted by organisations such as the Codex Alimentarius Commission and the International Plant Protection Convention. The Commission noted that although the current Glossary definitions of *commodity* and *feed ingredient* can be interpreted as including products derived from insects, the *Terrestrial Code* Glossary definition of *animal* does not currently include insects other than bees.

The Commission took note on the topic of the upcoming May 2022 issue of the *OIE Scientific and Technical Review* (Vol. 41 (1)) is 'Safety, regulatory, and environmental issues related to breeding and international trade of insects' and suggested using this to inform the Terms of Reference of a future *ad hoc* Group whose tasks may include better defining OIE's future role with respect to insects.

13. Any other issues

None at this meeting.

14. Programme and priorities

14.1. Update and prioritisation of the work plan

The Commission updated its work programme, identified the priorities, and scheduled the dates for the various *ad hoc* Group meetings, which will be accessible to Members on the OIE website.

The updated work programme is attached as Annex 12.

15. Adoption of the meeting report

The Commission adopted the report that was circulated electronically after the meeting.

16. Date of the next meeting

The next virtual meeting of the Scientific Commission is scheduled to take place between 7 and 18 February 2022, and will consist of eight days over this period.

17. Meeting Review

In the context of the Commission Performance Management Framework, a meeting review was conducted.

.../Annexes

MEETING OF THE OIE SCIENTIFIC COMMISSION FOR ANIMAL DISEASES

Virtual, 13 to 24 September 2021

Agenda

Opening

1. Adoption of the agenda
2. Welcome
3. Terrestrial Animal Health Code
 - 3.1. Comments received for Commission consideration
 - 3.1.1. Article 8.14.7 ‘Recommendations for importation of dogs from countries or zones infected with rabies virus’
 - 3.1.2. Chapter 12.2. ‘Contagious equine metritis’ – provisions for freedom
 - 3.1.3. Chapter 12.7. ‘Equine piroplasmosis’
 - 3.2. Other considerations
 - 3.2.1. Harmonisation of requirements for disease free status recognition and maintenance in disease-specific chapters
 - 3.2.1.1. Chapter 12.1. ‘Infection with African horse sickness virus’
 - 3.2.2. Chapter 8.14. ‘Infection with rabies virus’
 - 3.2.2.1. Development of draft article 8.14.Y ‘Recommendations for an official control programme for wildlife-mediated rabies’
4. *Ad hoc* and Working Groups
 - 4.1. Meeting reports for endorsement
 - 4.1.1. *Ad hoc* Group on Rift Valley fever: 15–18 June 2021
 - 4.1.2. *Ad hoc* Group on surra and dourine: 30 April to 24 June 2021
 - 4.1.3. *Ad hoc* Group on BSE (impact assessment): 21, 23, 28–30 June and 1 July 2021
 - 4.2. Planned *ad hoc* Groups and confirmation of proposed agendas
 - 4.2.1. *Ad hoc* Group on the evaluation of AHS status: 5–7 October 2021
 - 4.2.2. *Ad hoc* Group on the evaluation of official control programmes for dog-mediated rabies: 5–7 October 2021 (cancelled)
 - 4.2.3. *Ad hoc* Group on the evaluation of CBPP status: 5–7 October 2021
 - 4.2.4. *Ad hoc* Group on the evaluation of FMD status: 18–22 October 2021
 - 4.2.5. *Ad hoc* Group on the evaluation of CSF status: 26, 28 October 2021
 - 4.2.6. *Ad hoc* Group on the evaluation of BSE risk status: 16–19 November 2021

- 4.2.7. *Ad hoc* Group on the evaluation of PPR status: 7–9 December 2021 (cancelled)
- 4.3. Meeting reports for information
 - 4.3.1. *Ad hoc* Group on COVID-19 and Safe Trade in Animals and Animal Products: 16 December 2020 to 16 February 2021
 - 4.3.2. Working Group on Antimicrobial Resistance: 6–9 April 2021
 - 4.3.3. Working Group on Wildlife: 15–18 June 2021
5. Official animal health status
 - 5.1. Maintenance of official animal health status of Members
 - 5.1.1. Selection of status for comprehensive review of 2021 annual reconfirmations
 - 5.1.2. Update of annual reconfirmation forms: CSF and PPR free status, endorsed control programme for PPR and dog-mediated rabies.
 - 5.2. Specific updates on official animal health status
 - 5.2.1. Follow-up of countries having an official status or an endorsed control programme
 - Turkey, FMD free zone where vaccination is practised
 - United Kingdom, zone of England and Wales controlled BSE risk status
 - 5.3. State of play and prioritisation of Expert missions to Members requested by the Commission
 - 5.4. Standards related to official status recognition
 - 5.4.1. Transition plan with regard to the revision of Chapter 11.4. ‘Bovine spongiform encephalopathy’ and official BSE risk status
6. Global control and eradication strategies
 - 6.1. Foot and mouth disease: Global Control Strategy
 - 6.2. Peste des petit ruminants: Global Control and Eradication Strategy
 - 6.3. Rabies: Global Strategic Plan to End Human Deaths from Dog-Mediated Rabies ('Zero by 30')
 - 6.4. African swine fever: Global control initiative
7. OIE Collaborating Centres
8. Liaison with other Commissions and Departments
 - 8.1. Terrestrial Animal Health Standard Commission
 - 8.1.1. Taskforce on Chapter 8.8. ‘Infection with foot and mouth disease virus’
 - 8.1.2. Preparatory meeting on Chapter 11.4. ‘Bovine spongiform encephalopathy’
 - 8.2. Biological Standards Commission
 - 8.2.1. Inconsistency between Code and Manual in definition of infection with foot and mouth disease virus
9. Conferences, workshops, meetings, missions
 - 9.1. Stop ASF: Public and private partnering for success. Webinar series conducted 14–28 June 2021
 - 9.2. Standing Group of Experts on African Swine Fever of the GF-TADs for the Americas, meetings 29 and 30 July 2021
 - 9.3. Lumpy skin disease (LSD) coordination meeting for South East Asia, 11 June 2021

10. Disease control specific issues

10.1. Evaluation of pathogenic agent against listing criteria of *Terrestrial Code* Chapter 1.2.

10.1.1. Consideration of request and determination of way forward (**SOP 3.1-2**)

10.1.1.1. Infestation of honey bees with *Acarapis woodi*

10.1.1.2. Infestation of honey bees with *Tropilaelaps* spp.

10.1.1.3. Strangles (infection with *Streptococcus equi*)

10.1.2. Consideration of expert consultation report and BSC opinion (**SOP 3.2-8**)

10.1.2.1. Paratuberculosis

10.1.2.2. West Nile fever

10.2. Progress of the work on case definitions

10.2.1. Process, confirmation of proposal for next tranche of diseases

10.2.2. Diseases

10.2.2.1. Nipah virus encephalitis

10.2.2.2. Bovine viral diarrhoea

10.3. Rabbit haemorrhagic disease

10.4. African swine fever in the Dominican Republic (update)

10.5. Lumpy skin disease (update)

11. For Commission information

11.1. Update on OFFLU

11.2. Update on the SIRCAH STAR-IDAZ International Research Consortium

11.3. Update on the OIE Collaborating Centre for Good Beekeeping Management Practices and Biosecurity Measures in the Apiculture Sector

11.4. Update on the Global Burden of Animal Diseases programme (GBADS) and the OIE Collaborating Centre for the Economics of Animal Health

12. International trade of insects: potential impact on animal health

13. Any other issues

14. Programme and priorities

14.1. Update and prioritisation of the work plan

15. Adoption of the report

16. Date of next meeting

17. Meeting review

MEETING OF THE OIE SCIENTIFIC COMMISSION FOR ANIMAL DISEASES

Virtual, 13 to 24 September 2021

List of participants

MEMBERS

Dr Cristóbal Zepeda (President)
Area Director South America Pacific and
Central America
USDA APHIS IS Lima, Peru
3230 Lima Place
Dulles, VA 20189-
UNITED STATES OF AMERICA
cristobal.zepeda@usda.gov

Dr Kris De Clercq (1st Vice-President)
BELGIUM
krisdeclercq9@gmail.com

Dr Trevor Drew (2nd Vice-President)
CSIRO Australian Centre for Disease
Preparedness
5 Portarlington Road
Geelong
Victoria 3220
AUSTRALIA
trevor.drew@csiro.au

Dr Silvia Bellini
Istituto Zooprofilattico Sperimentale della
Lombardia e dell'Emilia Romagna "Bruno
Ubertini"
Via Bianchi 28/A
25124 Brescia
ITALY
silvia.bellini@izsler.it

Dr Misheck Mulumba
Agricultural Research Council
Private Bag X05
Onderstepoort 0110
Pretoria
SOUTH AFRICA
mulumbam@arc.agric.za

Dr Baptiste Dungu
CEO-Onderstepoort Biological Products
Private Bag X07
Onderstepoort 0110
Pretoria
SOUTH AFRICA
baty@obpvaccines.co.za
badungu@gmail.com

OIE HEADQUARTERS

Dr Gregorio Torres
Head of Science Department
g.torres@oie.int

Dr Jenny Hutchison
Deputy Head of Science Department
j.hutchison@oie.int

Dr Rachel Tidman
Global Rabies Coordinator
Science Department
r.tidman@oie.int

Dr Serin Shin
Scientific Coordinator
Science Department
s.shin@oie.int

Dr Valeria Mariano
Research Coordinator – SIRCAH STAR-
IDAZ
Science Department
v.mariano@oie.int

Dr Neo Mapitse
Head of Status Department
n.mapitse@oie.int

Dr Min Kyung Park
Deputy Head of Status Department
m.park@oie.int

Original: English
July 2021

**Expert consultation in response to Member comments on changes proposed to
Article 8.14.7. by the OIE ad hoc Group on Rabies**

27 July 2021

Authors: OIE Rabies reference laboratory network (RabLAB)

The OIE *ad hoc* Group on Rabies (November 2019) suggested to modify Article 8.14.7 of the *OIE Animal Health Terrestrial Code* and reduce the waiting time after a positive antibody titration test from 90 to 30 days. A peer reviewed publication describing the scientific evidence to support those changes was published in the scientific journal *Vaccine* and released in the February 2020 OIE Scientific Commission for Animal Diseases (“*Scientific Commission*”) report¹. The OIE Terrestrial Animal Health Standards Commission (“*Terrestrial Code Commission*”) amended Article 8.14.7 and circulated for OIE Members Countries’ (*Members*) comments after its September 2020 meeting. The Scientific Commission agreed to consult subject-matter experts to address Member’s concerns expressed after the first round of consultation.

Some Members expressed concerns, that the data presented, and the conclusions drawn, are not sufficient for a policy change and would request additional scientific evidence. The OIE Reference Laboratory rabies experts consulted therefore re-evaluated the concept paper. First and foremost, the concept paper went through rigorous peer-review and was accepted for publication in the scientific journal *Vaccine* (1).

The root-concern raised by opposing Members upon the interpretation of antibody-detection in a previously vaccinated dog. Current diagnostic assays are unable to distinguish between antibody resulting from active infection as compared to antibody resulting from vaccination. Due to this deficiency in approved rabies serologic assays, one must rely on additional factors such as time-from-vaccination, time-from-titer, and current health status to interpret rabies serology results. After extensive consideration, the OIE Reference Laboratory rabies experts concluded the following:

- At the time of anti RABV antibody detection, it is not possible to determine if those antibodies are the result of active infection or successful vaccination,
- Infection-induced antibody occurs late in the clinical phase of rabies,
- Dogs with infection-induced antibody will succumb to rabies virus infection or show clinical signs of rabies within 13 days of antibody detection; either condition would render the dog ineligible for importation per OIE Standards,
- The great majority of imported rabid dogs are the result of fraudulent vaccination paperwork,
- There is sufficient scientific and observational data to confidently support a 30-day post-titer waiting period under the OIE Standards.

It is evident from modelling studies that the duration of the waiting time either in quarantine or after vaccination in the country of origin is the most important risk mitigating measure (2–4). In the Have et al. (2006) assessment it was found that additional serological testing under the condition of a 3-month waiting period can be regarded rather as a compliance test to vaccination that could also be replaced by a second vaccination. Also, one point of note is that the serological assessment of adequate vaccination is actually not part of the rabies vaccine licensure, which is based on vaccine efficacy (5, 6). However, both in the harmonized schemes for pet travel in the European Union (EU) for certain non-listed countries and in the current version of the OIE Terrestrial Code, the requirement of a serum neutralization titre (SNT) >0.5 IU/ml is stated. Previous risk assessments only regarded a positive

¹ https://www.oie.int/fileadmin/Home/eng/International_Standard_Setting/docs/pdf/SCAD/A_SCAD_Feb2020.pdf

serological test of a clinically healthy animal as proof for adequate vaccination and protection. But an animal incubating rabies and adequately responding to vaccination that may show a virus neutralizing antibody (VNA) titre is going to die within 30 days after the positive test (7). The dataset was then extended based on previously not recognised publications a re-evaluation demonstrated strong statistical support for this statement (2–4) as this new information almost doubles the key observations. This core concept of the proposed change is founded on the pathobiology of the disease and has not been questioned or challenged by the Members. Admittedly, the scientifically published data on the clinical course of rabies in vaccinated animals or the effect of vaccination on incubating animals appeared rather limited. Nonetheless, these studies underline the principle concept, even with all limitations.

It is evident that countries with a long history of rabies freedom have a hesitancy to change their current policy which may increase their risk of potential rabies importation, even if this increase is regarded negligible. Here, the proposed wording “*...and were subjected, not less than 30 days and not more than 12 months prior to shipment...*,” allows for the countries to even implement stricter rules according to their own risk assessments. In fact, some countries or entities, as for example the EU or Japan, are already beyond the recommendations of the OIE Terrestrial Code and therefore, could be more open to the proposed changes.

Another point that was questioned was the data on incubation periods for dogs not being representative for natural conditions. While experimental studies can only mimic a proportion of real-life scenarios, numerous countries have effectively operated natural conditioned studies for the last decade, through a mixture of importation policies. As noted in the *peer review* publication on this matter, over 1 million dogs have been imported from high-risk countries into the United States of America (US) over the past decade; these dogs have only required a 30-day post-vaccination waiting period (serology is not required). Among over 1 million dogs from high-risk countries, only 7 became rabid upon entry. All 7 (100%) had fraudulent vaccination records; none were the result of properly vaccinated dogs developing rabies more than 30 days after vaccination. Despite much stricter dog importation regulations in the EU, similar rates of importing rabid dogs have been reported, and as seen in the US, importation failures are the result of fraudulent paperwork, not failures in vaccination or waiting periods. Nonetheless, we have searched the literature for more studies and added this data to the figures, stratified by inoculation dose for dogs, and also separately for cats. While we can show that even the short 30-day waiting period alone would minimise the number of incubating animals to less than 10%, these latter animals would be detected by the serological testing and thus would not represent a threat to introduction.

After careful analysis of the Member’s concerns and considering that the proposed change received majority support from the heads of the OIE Rabies Reference Laboratories Network (OIE RABLAB), the conclusions of the 2019 OIE *ad hoc* Group on Rabies that reviewed dog importation standards remain unchanged.

The scientific basis for a 30-day post-titer waiting period is justified and it is the OIE RABLAB’s recommendation to reflect the robust scientific and observational evidence to support these amendments to the Terrestrial Code.

References

1. Smith TG, Fooks AR, Moore SM, Freuling CM, Müller T, Torres G, Wallace RM. 2021. Negligible risk of rabies importation in dogs thirty days after demonstration of adequate serum antibody titer. *Vaccine*. doi:10.1016/j.vaccine.2021.03.064.
 2. Have P, Alban L, Berndtsson LT, Cliquet F, Hostnik P, Rodeia SC, Sanaa M. 2008. Risk of rabies introduction by non-commercial movement of pets. *Dev. Biol. (Basel)* 131:177–185.
 3. European Food Safety Authority. 2007. Opinion of the Scientific Panel on Animal Health and Welfare (AHAW) on a request from the Commission regarding an assessment of the risk of rabies introduction into the UK, Ireland, Sweden, Malta, as a consequence of abandoning the serological test measuring protective antibodies to rabies. *EFSA Journal* 5:436. doi:10.2903/j.efsa.2007.436.
 4. Goddard AD, Donaldson NM, Horton DL, Kosmider R, Kelly LA, Sayers AR, Breed AC, Freuling CM, Müller T, Shaw SE, Hallgren G, Fooks AR, Snary EL. 2012. A quantitative release assessment for the non-commercial movement of companion animals. risk of rabies reintroduction to the United Kingdom. *Risk analysis: an official publication of the Society for Risk Analysis* 32:1769–1783. doi:10.1111/j.1539-6924.2012.01804.x.
 5. EMA. 2008. Evaluation of the efficacy of veterinary vaccines and immunosera. *European Pharmacopoeia* 5.2.7.:2829.
 6. Anonymous. as amended at 2010. Electronic Code of Federal Regulations (e-CFR) Title 9. Animals and Animal Products Chapter I. ANIMAL AND PLANT HEALTH INSPECTION SERVICE, DEPARTMENT OF AGRICULTURE Subchapter E. VIRUSES, SERUMS, TOXINS, AND ANALOGOUS PRODUCTS; ORGANISMS AND VECTORS Part 113. STANDARD REQUIREMENTS Subjgrp 73. Killed Virus Vaccines.
 7. Fooks AR, Cliquet F, Finke S, Freuling C, Hemachudha T, Mani RS, Müller T, Nadin-Davis S, Picard-Meyer E, Wilde H, Banyard AC. 2017. Rabies. *Nat. Rev. Dis. Primers* 3:1–19. doi:10.1038/nrdp.2017.91.
-

Rationale for the amendments to:

**CHAPTER 12.7. EQUINE PIROPLASMOSIS
provided by the Scientific Commission**

Article 12.7.1. General Provisions

In response to a Member comment to include the vertical transmission pathway, the Commission agreed with the experts amended proposal to mention ‘from mares to foals’ in order to avoid confusion with the transovarial transmission of parasites from female ticks to their eggs.

Since this Chapter takes into account not only clinical disease but also infection with *T. equi* and *B. caballi*, the Commission agreed with the proposed amendments in the introductory paragraph to account for asymptomatic carriers.

The Commission disagreed with the proposal to add the genera of ticks *Ixodes* and *Haemaphysalis* to the list of competent vectors, as the referenced studies were carried out under experimental conditions.

In response to a Member proposal to require absence of treatment history in the case of presence of antibodies specific to *T. equi* or *B. caballi*, the Commission mentioned that antibodies specific to *T. equi* or *B. caballi* alone are not sufficient to be defined as an infection but should be followed up by investigations to determine whether or not it is an active infection, irrespective of past treatment.

Article 12.7.3. Country or zone free from infection with *T. equi* and *B. caballi*

Regarding a Member comment on historical freedom, the Commission found the provisions under Article 1.4.6.2 not applicable to infection with *T. equi* or *B. caballi*, as the vast majority of infections are asymptomatic.

The Commission disagreed with a Member request to reduce the time requirement for not having a case of infection with *T. equi* and *B. caballi* from six years to two years for consistency with the Chapter on Theileriosis. The Commission considered that requirements for Theileriosis would not apply since *B. caballi* is transmitted transovarially, and therefore persists in ticks for more than one generation, unlike *Theileria* species.

The Commission acknowledged that demonstration of the absence of competent vectors alone is not sufficient, and vector surveillance should be always used in conjunction with animal surveillance. Moreover, considering the possibility of iatrogenic and transplacental transmission, the Commission concluded that a country cannot contend that absence of a vector alone confers freedom from infection.

The Commission agreed with a Member suggestion to include the reference to draft article 12.7.6. on the recommendations for temporary importation of equids, so that a Member’s animal health status would not be affected as long as these provisions are complied with.

Article 12.7.5. Recommendations for the importation of equids

The Commission agreed with a Member comment that, when relying on serological tests alone, animals should be maintained free from ticks for at least 60 days prior to shipment. This period of 60 days could be reduced to 30 days if the animals are subjected to both serological and agent identification tests.

In response to the Member proposal to include a provision to account for potential iatrogenic transmission, the Commission did not agree with the Member as prevention of iatrogenic risks should be part of the daily good management practice. Risk of iatrogenic transmission would be applicable for many other diseases and not exceptionally for this chapter.

Article 12.7.6. Recommendations for the temporary importation of equids

The Commission proposed to delete the provision on daily examination for the presence of ticks of all four genera as there are already two preceding requirements for the animals to be maintained free from ticks prior and during transport and during the stay in the country or zone where the animals are imported temporarily. The Commission also considered this provision not practical in all settings and the consequences in case of detection of a tick is unclear.

In line with the opinion under Article 12.7.5., the Commission proposed to delete the provision on iatrogenic transmission for consistency.

Article 12.7.9. Surveillance strategies

The Commission disagreed with a Member comment that an active surveillance programme is not justifiable for countries or zones with naive equid populations. The Commission considered an active animal surveillance programme essential to detect infection with *T. equi* and *B. caballi* due to the high percentage of subclinical cases even in a naive population.

The Commission also disagreed with a Member proposal to delete the requirement of vector surveillance. Vector surveillance is an essential component in surveillance for a vector borne disease and it complements animal surveillance since animal surveillance only records the situation in the past, while knowledge on vectors also adds an element of prediction. Furthermore, the objective of vector surveillance is not only to demonstrate the absence of competent tick vectors for declaring freedom, but also to define areas with low, medium, and high risk of infection with *T. equi* and *B. caballi*.

Original: English
June 2021

**REPORT OF THE VIRTUAL MEETING OF THE OIE AD HOC GROUP
ON RIFT VALLEY FEVER
14 to 18 June 2021**

A virtual meeting of the OIE *ad hoc* Group on Rift Valley fever (hereafter the Group) was held from 14 to 18 June 2021.

1. Opening

On behalf of Dr Monique Eloit, Director General of the OIE, Dr Matthew Stone, OIE Deputy Director General for International Standards and Science, welcomed and thanked the Group for its commitment and the extensive support towards the OIE mandates. Dr Stone acknowledged that Rift Valley fever (RVF) is a complex disease having significant implications for both human and animal health, and is therefore a good model for implementing the One Health approach.

Dr Stone explained that the objective of the meeting was to develop up-to-date science-based recommendations to revise OIE *Terrestrial Animal Health Code (Terrestrial Code)* Chapter 8.15 ‘Infection with Rift Valley fever virus’, in particular to provide improved guidance to Members on surveillance and notification requirements.

Dr Stone emphasised that the members of the Group were nominated by the Director General of the OIE according to their internationally recognised expertise and geographically balanced representation. He noted that all members of the Group were asked to declare any actual or potential conflict of interest and respect the confidentiality of the process.

The Group was advised that *Terrestrial Code* Chapter 8.15 was under revision and was circulated for Member comments after the February 2020 Specialist Commissions meetings.

2. Adoption of the agenda and appointment of chairperson and rapporteur

Dr Gideon Brückner was appointed Chair and the OIE Secretariat acted as rapporteurs. The Group endorsed the proposed agenda.

The terms of reference, agenda, and list of participants are provided as Appendices I, II and III, respectively.

3. Recovery of disease freedom

Dr Gideon Brückner noted the importance of reviewing Chapter 8.15 and reminded the Group that the Chapter is supported by other horizontal chapters of the *Terrestrial Code*, particularly Chapters, 1.1, 1.4 and 1.5. Dr Etienne Bonbon, president of the Terrestrial Animal Health Standards Commission, outlined the key points in these chapters and noted that with the current recommendations, countries are unable to recover freedom in fewer than 10 years following an incursion. The Group noted that the key question was not whether it was possible to eradicate the disease/infection, but rather the timeframe that would be needed using active pathogen-specific surveillance, to demonstrate absence of infection. The Group acknowledged the complex epidemiology of Rift Valley fever virus (RVFV), particularly virus transmission and the variability in inter-epizootic periods.

It was noted that, while theoretically it may be possible with active pathogen-specific surveillance in susceptible hosts and vectors to gather evidence of virus circulation, the complex epidemiology, including the role of ecological factors, vectors and wildlife, and the variation in the epidemiology of the disease between countries made it difficult to demonstrate absence of virus circulation.

It was also noted that, to date, there has been no scientifically documented situation where an incursion had occurred, and freedom recovered in fewer than 10 years. The Group concluded that there was insufficient scientific evidence to support adding an article on fast recovery of freedom to the chapter, and recommended that the current guidance in the chapter remain unchanged.

4. Risks posed by semen (draft Article 8.15.9. ‘Recommendations for importation of semen and *in vivo* derived embryos of susceptible animals from countries or zones infected with RVFV’)

The Group reviewed available literature and discussed in detail the risk posed by semen. The Group noted that there was insufficient scientific evidence in the literature to indicate that semen remains infective following recovery of infected animals. The Group concluded that the risk mitigation recommendations in the current article should be sufficient to prevent disease transmission. However, the Group acknowledged the gap in available information and strongly recommended that new information on the risk of RVFV in semen is taken into consideration should this become available.

4.1. Literature

1. Haneche F., Leparc-Goffart I., Simon F., Hentzien M., Martinez-Pourcher V., Caumes E. & Maquart M. (2016). – Rift Valley fever in kidney transplant recipient returning from Mali with viral RNA detected in semen up to four months from symptom onset, France, autumn 2015. *Eurosurveillance*, 21 (18). doi:10.2807/1560-7917.ES.2016.21.18.30222.
 2. Odendaal L., Clift S.J., Fosgate G.T. & Davis A.S. (2019). – Lesions and Cellular Tropism of Natural Rift Valley Fever Virus Infection in Adult Sheep. *Vet Pathol*, 56 (1), 61–77. doi:10.1177/0300985818806049.
- 5. Rift Valley fever virus inactivation in milk (draft Article 8.5.11. ‘Recommendations for importation of milk and milk products of susceptible animals from countries or infected with RVFV’)**

The Group reviewed available literature on the inactivation of RVFV and other bunyaviruses in milk following pasteurisation. The Group discussed the topic of time and temperature combinations for pasteurisation in depth, and while they acknowledged the gap in research on thermal inactivation of RVFV, it was also noted that there was no evidence to support a risk from pasteurised milk. The Group concluded that there was insufficient scientific evidence to justify a modification in the chapter and considered that pasteurisation as described in the Codex Alimentarius Code of Hygienic Practice for milk and milk products is sufficient to make milk and milk products safe.

The Group strongly recommended that new information on the risk of RVFV in milk and milk products is taken into consideration should this become available.

5.1. Literature

1. LaBeaud A.D., Muiruri S., Sutherland L.J., Dahir S., Gildengorin G., Morrill J., Muchiri E.M., Peters C.J. & King C.H. (2011). – Postepidemic Analysis of Rift Valley Fever Virus Transmission in Northeastern Kenya: A Village Cohort Study. *PLoS Negl Trop Dis*, 5 (8), e1265. doi:10.1371/journal.pntd.0001265.
2. Grossi-Soyster E.N., Lee J., King C.H. & LaBeaud A.D. (2019). – The influence of raw milk exposures on Rift Valley fever virus transmission. *PLoS Negl Trop Dis*, 13 (3), e0007258. doi:10.1371/journal.pntd.0007258.

3. Calisher C.H. & Shope R.E. (1988). – Bunyaviridae: The Bunyaviruses. In *Laboratory Diagnosis of Infectious Diseases Principles and Practice*, Springer New York, New York, NY. pp 626–646doi:10.1007/978-1-4612-3900-0_32.

6. Surveillance

The Group was requested to develop guidance for RVF surveillance during both epizootic and inter-epizootic periods and provide recommendations to revise Article 8.15.13 accordingly.

a) Developing recommendations for the establishment of a baseline for low RVFV activity

The Group concluded that it was not feasible to propose a uniform international standard for the establishment of a baseline for low RVFV activity, as there were too many epidemiological variations and different ecological situations between countries.

b) Considering activities under an early warning system that could signal a transition to an epizootic of RVF

The Group noted that Chapter 8.15 provides different recommendations for the importation of susceptible animals from infected countries or zones depending on whether they were imported during an epizootic or inter-epizootic period (draft Article 8.15.7 and draft Article 8.15.8). Countries requested specific guidance on how to determine whether they were in an epizootic or inter-epizootic period. It was also noted that the current focus of the chapter was mostly to facilitate safe international trade rather than providing recommendations for disease control.

The Group stressed the difficulty in clearly defining inter-epizootic periods. These should take into consideration the epidemiological context and not be defined solely by the level of viral circulation or vector activity as these may be low even in epizootic situations. The Group highlighted that the seroprevalence may be relatively high in more resistant hosts during inter-epizootic periods even in the absence of clinical signs. The Group also noted that although ecological factors may indicate an increased risk for RVFV transmission, these were unreliable in predicting RVF epizootics.

The Group proposed revising Article 8.15.1 to better define the inter-epizootic period:

- Reference to levels of vector activity and RVFV transmission were removed from the definition of inter-epizootic period 2) c). The Group proposed defining ‘inter-epizootic period’ as a period between two epizootics. The Group considered that the subsequent revisions proposed to Article 8.15.13 will help Members identify epizootics, and that the revision to 2) c) removes the need for Members to define low levels of vector activity or low rates of RVFV transmission. The Group reiterated that inter-epizootic periods are highly variable.
- The Group also noted that the terminology ‘epizootic’ and ‘inter-epizootic’ had been replaced in the wider scientific community by ‘epidemic’ and ‘inter-epidemic’. The Group suggested the Specialist Commissions to consider replacing ‘epizootic’ and ‘inter-epizootic’ throughout Chapter 8.15.

The Group proposed the following revisions to Article 8.15.13 ‘Surveillance’ to provide further guidance to countries on factors that may signal a transition to an epizootic of RVF:

- The following text was added to point 1): ‘An epizootic should be suspected in countries or zones infected with RVFV or countries or zones adjacent to a country or zone in which epizootics have been reported, when ecological conditions favour the breeding of large numbers of mosquito and other vectors with concurrent or consequent occurrence of higher incidences of abortions, and fatal disease particularly in new-born lambs, kids and calves marked by necrosis and haemorrhages in the liver, and the occurrence of an influenza-like illness in humans following exposure to body tissues and fluids of susceptible animals or to competent vectors.’
- The following text was added to point 2): ‘Ecological conditions can be assessed through the sharing and analysis of meteorological and precipitation/water levels data as well as the monitoring of vector activity. Clinical surveillance, e.g. the monitoring of abortions and the use of sentinel herds, can

support suspicion of epizootics. Serological surveillance can also be used to assess the level of seroconversions.'

- Point 3) (previously point 1) was revised to: 'During an epizootic, *surveillance* should be conducted to define the extent of the affected area (epizootic area) for the purpose of disease prevention and control as well of movements and trade of susceptible animals (see draft Article 8.15.7.)'.
- Point 4) (previously point 2) was revised to provide more specific guidance on surveillance during the inter-epizootic period by making references to sentinel livestock herds and the monitoring of ecological factors.

c) Assessing if the examination of vectors for the presence of RVFV could be considered as a suitable surveillance method for RVF and if so, providing recommendations

The Group noted that variations in ecology of vectors affect RVFV transmission differently in different contexts and noted that vectors may have low viral positivity rate even during epizootics. The Group concluded that the estimation of the distribution and abundance of vectors is a recommended surveillance method. However, the Group did not recommend investigation of the presence of RVFV in vectors as a core component of RVF surveillance. The Group proposed amending Article 8.15.13 to emphasise that the examination of vectors for the presence of RVFV is a surveillance method with low sensitivity, and therefore is not recommended.

d) Advising on the use of human surveillance data to support RVF surveillance in animals

The Group supported the One Health approach for RVF prevention and control, and recommended that countries should endeavour to promote interaction with and collaboration between human, animal, and environmental health sectors to facilitate the exchange of disease and ecological data. The Group proposed an addition to Article 8.15.3 to highlight the importance of coordination between *Veterinary Authorities* and public health authorities, and the role of human surveillance data in supporting RVF surveillance in animals.

7. Other recommendations for revisions to Chapter 8.15.

The Group proposed the following changes:

- Article 8.15.3 2) b) was revised to replace human 'cases' with 'infections', as the term 'case' is used in the *Terrestrial Code* to refer to animals. The term 'occurred' was replaced with 'have been reported by the public health authorities'.
- 'During dawn or dusk' was removed from point 3) in Article 8.15.5. and replaced with 'in epizootic areas' as some vectors may be active at other times.
- Item 2) c) was removed from Article 8.15.6 to be consistent with the subsequent changes made to draft Article 8.15.7.

The Group noted that the proposed changes to Articles 8.15.1 and 8.15.13 would provide additional guidance to countries in defining epizootic and inter-epizootic periods, but advised that having both draft Articles 8.15.7 and 8.15.8 (which require different risk mitigation during epizootic and inter-epizootic periods) was unnecessary and likely resulted in additional confusion for Members whilst not contributing to risk mitigation.

The Group noted that draft Articles 8.15.7 and 8.15.8 on the importation of susceptible animals differed in only one aspect, in that draft Article 8.15.8 ‘Recommendations for importation of susceptible animals from countries or zones infected with RVFV during an epizootic’ includes a requirement that susceptible animals did not originate from an epizootic area. The Group concluded that because virus circulation still occurred in inter-epizootic periods, the risk mitigation measures should be the same in both epizootic and inter-epizootic periods, and referred to epizootic areas where the disease is present.

Accordingly, the Group proposed that:

- Draft Article 8.15.7 be revised to include the requirement that animals did not originate from an epizootic area and did not transit through an epizootic area, and that the text ‘during the inter-epizootic period’ be removed from the article title.
- Draft Article 8.15.8 be deleted.

8. Notification

The Group noted that due to the provisions of draft Articles 8.15.7 and 8.15.8 Members were often uncertain about how to define the epizootic and inter-epizootic periods, resulting in confusion as to what findings should be subject to immediate notification as required in Article 1.1.3.

The Group stressed the importance of Members notifying the OIE in accordance with the case definition provided in Article 8.15.1. The revisions to draft Articles 8.15.7 and 8.15.8 will therefore minimise uncertainty with regards importation of susceptible animals, improve transparency in reporting and harmonise the chapter with other disease chapters in the *Terrestrial Code* where the use of the case definition for a disease is the main criterion for reporting.

The Group emphasised that the transition from an inter-epizootic to an epizootic period signifies a change in the distribution and/or incidence of RVF in a Member and therefore complies with point 1) d) of Article 1.1.3. in terms of notification.

9. Finalisation and adoption of the draft report

The Group reviewed and amended the draft report. The Group agreed that the report reflected the discussions.

.../Appendices

VIRTUAL MEETING OF THE OIE AD HOC GROUP ON RIFT VALLEY FEVER
14 to 18 June 2021

Terms of reference

Purpose

The purpose of the *ad hoc* Group on Rift Valley fever (RVF) is to provide the OIE with up-to-date scientifically based recommendations to revise Chapter 8.15 entitled ‘Infection with Rift Valley fever virus’ of the OIE *Terrestrial Animal Health Code (Terrestrial Code)* to ensure that relevant texts reflect the latest scientific evidence and best practices.

The *ad hoc* Group is convened under the authority of the OIE Director General and reports to the Scientific Commission for Animal Diseases (Scientific Commission).

Background

During the ongoing revision of [Chapter 8.15](#), OIE Members and relevant Specialist Commissions noted a number of gaps in the current chapter:

1. **Surveillance:** During inter-epizootic periods, evidence of RVF infection is found mostly through virus isolation and serology, as the sensitivity of passive surveillance is not sufficient to detect clinical signs in people or animals. Members requested further clarification and guidance for implementing effective RVF surveillance during both epizootic and inter-epizootic periods. Such guidance may consider, if appropriate, surveillance in humans and/or disease vectors.
2. **Notification:** Additional guidance is required as to what findings should be subject to Immediate Notification during epizootic and inter-epizootic periods, even in countries that report an endemic status for RVF. The interaction between Chapters 1.1 and 8.15 should leave no room for doubt and encourage implementation of an effective international/regional early warning system.
3. **Disease freedom:** Article 8.15.3 does not provide recommendations for the recovery of freedom in the case of an incursion of RVF in a country that has been historically free. Members requested that the development of recommendations to address this situation be considered.
4. **Risk posed by semen (Article 8.15.9, version under revision):** There is need to provide scientific evidence that semen from animals with antibodies from previous infection would not be infective. In addition, the duration of infectivity of semen after natural infection should be reviewed and amended accordingly.
5. **Virus inactivation in milk (Article 8.5.11, version under revision):** Certain time/temperature combinations used for pasteurisation are not effective to inactivate RVF virus (RVFV). It was requested that expert advice be sought regarding pasteurisation requirements that ensure RVFV inactivation in milk.

Specific issues to be addressed

To allow Members to mitigate the animal and public health risks posed by RVFV infection and to prevent its international spread, the ad hoc Group should address the following points:

- Consider developing requirements for the recovery of country or zone freedom in case of incursion of RVF in a country that has been historically free and, if needed, provide recommendations to revise Article 8.15.3 accordingly.
- Review available scientific information about the duration of infectivity of semen after RVF natural infection, and provide recommendations to revise Article 8.15.9 (version under revision) accordingly.
- Review available scientific information regarding infectivity of semen in animals with antibodies against RVF from previous infection, and provide recommendations to revise Article 8.15.9 (version under revision) accordingly.
- Review available scientific information regarding time/temperature combinations used to ensure inactivation of RVFV in milk, and provide recommendations to revise Article 8.15.11 (version under revision) accordingly.
- Develop guidance for effective RVF surveillance during both epizootic and inter-epizootic periods, and provide recommendations to revise Article 8.15.13 accordingly. This may include:
 - developing recommendations for the establishment of baseline for low RVFV activity;
 - considering activities under an early warning system that could signal a transition to an epizootic of RVF;
 - assessing if the examination of vectors for the presence of RVFV could be considered as a suitable surveillance method for RVF and if so, providing recommendations;
 - advising on the use of human surveillance data to support RVF surveillance in animals.
- Provide any other recommendation to update Chapter 8.15 15 necessary to address the issues identified in this ToR.

Considerations

The *ad hoc* Group members should consider the following:

- Relevant discussions of the Scientific Commission and the Code Commission related revisions of Chapter 8.15 (i.e., September 2018, February 2019, September 2019, February 2020, and September 2020 meetings reports - summary to be provided among the Working Documents).
- Other relevant *Terrestrial Code* chapters, in particular Chapter 1.4 entitled ‘Animal health surveillance’ and Chapter 1.5 entitled ‘Surveillance for arthropod vectors of animal disease’.
- All proposed amendments should be consistent with the structure and scope of the *Terrestrial Code* (i.e., improving control of transboundary diseases in animals).

Prerequisites

Ad hoc Group members should:

- sign the OIE Undertaking on Confidentiality of Information (if not done already)
- complete the Declaration of Interest Form
- be familiar with the structure of the *Terrestrial Code* and the *Terrestrial Manual*, and the use of Glossary definitions
- provide, prior to the meeting, any relevant scientific literature to support the discussion
- be familiar with Chapters 1.4, 1.5, and 8.15 of the *Terrestrial Code* (to be provided in the Working Documents)
- understand that the membership of the Group may be revised between group meetings to reflect changing needs and priorities (for example, if additional expertise becomes necessary).

Deliverables

A meeting report including proposed revised texts and the rationale for proposed amendments.

Reporting / timeline

The *ad hoc* Group will finalise its meeting report within 6 weeks after the end of the last meeting.

**VIRTUAL MEETING OF THE OIE AD HOC GROUP
ON RIFT VALLEY FEVER
14 to 18 June 2021**

Agenda

1. Opening and welcome address (OIE DDG)
2. Appointment of chair
3. Opening address by chair
4. Adoption of Terms of Reference
5. Housekeeping and working procedures
6. Proposed working program in support of TOR:

Day 1: 14 June: Recovery of status for RVFV infection: Article 8.15.3

Surveillance for RVFV infection: Article 8.15.13

Day 2: 15 June: Infectivity of semen: Article 8.15.9

Inactivation of RVFV in milk: Article 8.15.11

Day 3: 16 June: Review discussions of 14 and 15 June and finalise recommendations for draft report

Discussion on notification of RVF cases in accordance with Chapter 1.1

Day 4: 18 June: Review and adoption of draft report

Appendix III

**VIRTUAL MEETING OF THE OIE AD HOC GROUP
ON RIFT VALLEY FEVER
14 to 18 June 2021**

List of participants**MEMBERS**

Dr Gideon Brückner Former SCAD President South Africa	Dr Ahmed Bezeid Beyatt Head Of Infectious Diseases laboratory Office national de recherches sur le développement de l'élevage (ONARDEL) Mauritania	Dr Alessandro Broglia Senior Scientific Officer EFSA Italy
Dr Baratang Alison Lubisi Senior Research Veterinarian Onderstepoort Veterinary Institute South Africa	Dr Emmanuel S. Swai Veterinary Epidemiologist Anicare Vet Services Tanga, Tanzania	Prof Koos Coetzer Emeritus Professor Faculty of Veterinary Science University of Pretoria South Africa
Dr Catherine Cetre-Sossah Research Virologist CIRAD, UMR ASTRE Montpellier, France		Dr Bernard Bett Senior scientist International Livestock Research Institute Kenya

REPRESENTATIVES OF THE SPECIALIST COMMISSIONS

Dr Baptiste Dungu Member of OIE Scientific Commission CEO Onderstepoort Biological Products South Africa	Dr Etienne Bonbon President of OIE Terrestrial Animals Standards Commission Senior Veterinary Advisor FAO EMC-AH / Animal Health Service Italy
--	---

OBSERVERS

Dr Pierre Formenty Team Lead – Viral Haemorrhagic Fevers WHO Switzerland	Dr Frederick Kivaria Regional Epidemiologist FAO Nairobi, Kenya
---	--

OIE PARTICIPANTS

Gregorio Torres Head Science Department	Rachel Tidman Global Rabies Coordinator Science Department	Yukitake Okamura Scientific Officer for International Standards Standards Department
Jenny Hutchison Deputy Head Science Department	Serin Shin Scientific Coordinator Science Department	

Original: English
June 2021

**REPORT OF THE VIRTUAL MEETINGS OF THE OIE AD HOC GROUP
ON SURRA AND DOURINE**

30 April to 24 June 2021

The OIE *ad hoc* Group on surra and dourine (hereafter the Group) met virtually on five occasions between 30 April and 24 June 2021.

1. Opening

On behalf of Dr Monique Eloit, Director General of the OIE, Dr Matthew Stone, OIE Deputy Director General for International Standards and Science, welcomed and thanked the Group for its commitment and the extensive support towards the OIE mandates.

Dr Stone acknowledged the complex epidemiology of the trypanosome pathogen family, and the difficulties surrounding the development of international standards that appropriately manage the various risks whilst also facilitating the safe international movements of susceptible animals and commodities. He noted that the related trypanosomes chapter (8.Y. ‘Infection with animal trypanosomes of African origin’¹) would be presented to the General Assembly for adoption at its 88th OIE General Session in May 2021.

Dr Stone explained that the objective of the meeting was to develop a draft chapter (8.X.) for infection with *Trypanosoma evansi* (surra), and to propose revisions to the existing Chapter 8.13 ‘Dourine’. He emphasized the importance of providing a sound rationale supported by scientific justification for the provisions proposed in the chapters. He noted the case definitions recently drafted by members of this Group and endorsed by the Scientific Commission for Animal Diseases (SCAD) at its February 2021 meeting would provide solid foundations for these chapters.

Dr Stone emphasised that the members of the Group were nominated by the Director General of the OIE according to their internationally recognised expertise and geographically balanced representation. He noted that all members of the Group were asked to declare any actual or potential conflict of interest and respect the confidentiality of the process.

2. Adoption of the agenda and appointment of chairperson and rapporteur

Prof. Marisa Gonzatti was appointed as chair and the OIE Secretariat acted as rapporteurs. The Group endorsed the proposed agenda.

The terms of reference, agenda and list of participants are provided as [Appendix I](#), [II](#) and [III](#), respectively.

3. Define the outlines and contents of the two chapters

The Group agreed to develop the outlines of the two chapters (‘Infection with *Trypanosoma evansi* (surra)’, and ‘Infection with *Trypanosoma equiperdum* (dourine)’ concurrently. The Group noted that the two chapters should not duplicate recommendations already present in horizontal chapters of the *Terrestrial Animal Health*

¹ The chapter was adopted with the revised title ‘Infection with *Trypanosoma brucei*, *T. congolense*, *T. simiae* and *T. vivax*’.

Code (Terrestrial Code) such as Chapter 1.1. on notification, and Chapters 1.4. and 1.5. on surveillance, but instead should reference the appropriate chapters. These two chapters should provide disease-specific guidance to assist Members in their effort to control the diseases, meet their notification obligations, and facilitate safe international movements of animals and animal products.

The Group agreed that both chapters should be constructed according to the following outline:

- general provisions
- safe commodities
- provisions on the animal health status of a country, zone, or compartment
- recommendations on safe trade (for commodities not considered as safe)
- surveillance.

4. Drafting the articles of Chapter 8.X. ‘Infection with *Trypanosoma evansi* (surra)’

4.1. Article 8.X.1. ‘General provisions’

The Group noted that *T. evansi* can infect a large range of domestic and wild mammals, but proposed that for the purposes of the *Terrestrial Code*, surra be defined as an infection of susceptible animals with *T. evansi*, and that ‘susceptible animals’ in this chapter means domestic and wild animals from the Equidae, Camelidae, Bovidae, Suidae, Canidae, Felidae families, the orders Rodentia and Lagomorpha, and non-human primates (1,2). This is a refinement of the draft case definition² endorsed by SCAD in February 2021, which proposed surra as an infection of mammalians.

The Group discussed modes of transmission of *T. evansi* (2,3,4,5,6), and noted the possibility of venereal transmission in addition to those more commonly reported (mechanical, vertical, iatrogenic, per-oral, or biological by bite of vampire bats).

The Group considered that the incubation period for infection with *T. evansi* would vary depending on factors including the vulnerability of the host species, previous exposure to *T. evansi*, and the virulence of the *T. evansi* involved. The Group noted that there have been instances of recrudescence of infection in horses even when antibodies are present, for up to 90 days. Considering this, the Group recommended that, for the purposes of the *Terrestrial Code*, the incubation period for *T. evansi* should be 90 days (7,8).

The Group referred to the *Terrestrial Code* Chapter 4.17. ‘High health status horse subpopulation’ and included a provision for the temporary importation of horses for competition or cultural events, but specified that these should exclude breeding or rearing activities.

4.2. Article 8.X.2. ‘Safe commodities’

The Group considered that the possibility of venereal transmission precluded the inclusion of any of semen, embryos, or oocytes in the list of safe commodities. Further, they noted that as trypanosomes might survive for up to three days in fresh meat, and might also persist in lymphatic tissue after slaughter, neither fresh meat nor raw hides and skin should be included in the list of safe commodities (9,10).

4.3. Article 8.X.3. ‘Country or zone free from infection with *T. evansi*’

The Group elected not to include any requirement for demonstration of the absence of competent vectors in this article, as it felt that such a requirement would be unrealistic. However, recognising the importance of vectors in the transmission of infection with *T. evansi*, the Group suggested inclusion of a provision that a country or zone that is free from infection with *T. evansi* but that is adjacent to an

² Scientific Commission for Animal Diseases (2021). Report of the meeting of the OIE Scientific Commission for Animal Diseases, 1–11 February 2021, Paris. OIE, Paris, France, Appendix 16. Available at: <https://www.oie.int/app/uploads/2021/05/a-scad-feb2021.pdf> (accessed on 23/07/2021).

infected country or zone should include a zone in which surveillance is conducted as outlined in Articles 8.X.17. to 8.X.19. The Group considered that at least two years would be required to gather epidemiological information sufficient to substantiate absence of infection.

4.4. Article 8.X.4. ‘Compartment free from infection with *T. evansi*’

The Group noted that the inclusion of surra³ in the diseases covered by the horizontal *Terrestrial Code* Chapter 4.17. ‘High health status horse subpopulation’ suggests that compartmentalisation is feasible and thus a corresponding article should be provided in this draft chapter. Nevertheless, the Group noted the difficulties associated with implementing the recommended requirement for protecting susceptible animals in the compartment against vectors, and concluded that compartmentalisation may have limited application for this disease.

For consistency with other articles in this draft chapter recognising the possibility of venereal transmission of *T. evansi*, the Group recommended that susceptible animals in the compartment be protected against both iatrogenic and venereal transmission.

4.5. Article 8.X.5 ‘Recovery of free status’

The Group suggested a period of six consecutive months for intensive surveillance after the last case was slaughtered (or infected animals treated); this period was chosen as it is two incubation periods.

Given the importance of transmission of *T. evansi* by vectors, the Group included in this article a provision for recovery of freedom requiring that appropriate biosecurity be in place, including vector control or protection from vector contacts in the affected area in accordance with Articles 1.5.2 to 1.5.3. However, the Group noted the difficulty of implementing this provision, and acknowledged that recovery of free status would be challenging.

4.6. Article 8.X.6. ‘Recommendations for importation of susceptible animals from countries, zones, or compartments free from infection with *T. evansi*’

Given that the animals originate from a free country, zone, or compartment, the Group did not feel that testing of the animals was indicated, but did recommend that either they did not transit through an infected zone, or were protected from vectors or any source of *T. evansi*, during transportation to the place of shipment.

4.7. Article 8.X.7. ‘Recommendations for importation of susceptible animals excluding dogs and cats from countries or zones infected with *T. evansi*’

The Group noted the importance of ensuring that the duration of isolation in a quarantine station was at least as long as the incubation period for *T. evansi*. It acknowledged that, as stated in Article 8.X.1, there is considerable variability in the incubation period for *T. evansi*, some of which is attributable to the species of the host. However, given the large number of host species included in this chapter’s definition of susceptible species, specific exceptions to the 90-day incubation period would best be accommodated by developing specific articles for importation (similar to 8.X.8, for dogs and cats) as needed.

4.8. Article 8.X.8. ‘Recommendations for importation of dogs and cats from countries or zones infected with *T. evansi*’

The draft article currently proposes that dogs and cats be isolated in a quarantine station for at least 30 days prior to shipment. The Group noted that the incubation period for infection of *T. evansi* in dogs and cats is considered to be less than 30 days (11). The Group mentioned that in some cases, home isolation might be a practical alternative to isolation in a quarantine station, and recommended a

³ https://www.oie.int/en/document/a_hhp_handbook_oct_2018/

provision for this. The Group recommended testing the animals twice, just before entry to quarantine/isolation, and secondly, within 15 days of shipment. The Group proposed 15 days as they felt that 7 days might not provide sufficient time to receive the test results.

4.9. Article 8.X.9. ‘Recommendations for importation of susceptible animals from countries or zones infected with *T. evansi* for immediate slaughter’

The Group discussed the risks associated with importing susceptible animals from infected countries or zones, and acknowledged the difficulties of protecting them from vector attack during transportation from origin directly to the slaughterhouse or approved abattoir, but insisted that this would be necessary to adequately mitigate the risk. In addition, the Group proposed testing on the day of shipment, and that the animals display no clinical signs on the day of shipment, and had been kept for six months (two incubation periods) in an establishment in which surveillance demonstrates that no case had occurred during that period.

4.10. Article 8.X.10. ‘Recommendations for the temporary importation of equids for competition purposes’

The Group reiterated their concerns about the feasibility of protecting such equids from vector attack, so proposed using ‘minimise’ rather than ‘avoid’ in their suggested text for Article 8.X.10 2) a): ‘measures are taken to minimise contact with vectors’. They also noted that disinsection should form part of the procedures carried out before stalls, vehicles, or vessels are reused.

4.11. Articles 8.X.11 to 8.X.14: Recommendations for importation of semen, embryos, and oocytes.

The Group proposed articles for importation from free countries, zones, or compartments for semen (Article 8.X.11) and embryos and oocytes (Article 8.X.13). For Article 8.X.11, the Group suggested a minimum residency period equivalent to two incubation periods (6 months) as a requirement for the donor males in the free country, zone, or compartment.

Similarly, the Group proposed articles for importation from countries or zones infected with *T. evansi* for semen (Article 8.X.12) and embryos and oocytes (Article 8.X.14). The Group suggested that the donor males (Article 8.X.12) and females (Article 8.X.14) be kept for six months (equivalent to two incubation periods) in an establishment in which surveillance in accordance with Articles 8.X.16., 8.X.17., and 8.X.18. demonstrated that no case of surra occurred during that period.

4.12. Article 8.X.15. ‘Recommendations for importation of fresh meat from susceptible animals from countries or zones infected with *T. evansi*’

As noted above, the Group considered that, as trypanosomes might survive for up to three days in meat, and might also persist in lymphatic tissue after slaughter, provisions would be required for importation of fresh meat from susceptible animals from countries or zones infected with *T. evansi*. The Group proposed that fresh meat should be held for at least 72 hours after slaughter before shipment.

4.13. Articles 8.X.16. to Article 8.X.19 on surveillance

The Group proposed four surveillance articles to complement the horizontal *Terrestrial Code* chapters 1.4. and 1.5.

a) Article 8.X.16. ‘Introduction to surveillance’

The Group used this article to provide additional information on the importance of vectors in the epidemiology of infection with *T. evansi*. They noted that, as the methods and tools for measuring some vector factors are still developing, surveillance for this infection should focus on detecting the transmission of *T. evansi* in susceptible animals. The Group recognised that the impact and epidemiology of infection with *T. evansi* varies widely around the world, and considered it would

not be possible to provide specific recommendations for each situation. However, they included a recommendation that susceptible wild animals should be included in the surveillance system, as they are included in the case definition and can serve as reservoirs of infection and as indicators of risk to susceptible domestic animals.

b) Article 8.X.17. ‘General conditions and methods of surveillance’

The Group proposed that a surveillance programme for infection with *T. evansi* should include serological or parasitological surveys, but emphasised that these should be appropriate to the status of the country or zone.

c) Article 8.X.18. ‘Surveillance methods’

The Group provided specific guidance on appropriate surveillance methods, and included a reminder that cross reactions to other Kinetoplastid species occur, and that there should be an effective procedure for following up cross reactions to determine, with a high level of confidence, whether they are indicative of infection with *T. evansi* or not.

The Group noted that, in the context of this chapter and depending on geographical region, vector species may include vampire bats, and this needs to be taken into account when designing and reporting on vector surveillance activities and results.

The Group acknowledged the difficulties of conducting surveillance in wildlife, and noted the possibility of applying molecular techniques to vectors to provide information about wildlife status.

d) Article 8.X.19. ‘Additional surveillance procedures for recovery of free status’

Given the importance of vectors in the epidemiology of this infection, the Group emphasised that a surveillance programme designed to demonstrate absence of infection with *T. evansi* should include surveillance of establishments in the proximity of, or epidemiologically linked to, the outbreak, and animals moved from, or used to repopulate affected establishments.

5. Drafting the articles of Chapter 8.13. ‘Dourine’

The Group developed articles for the revised Chapter 8.13. ‘Dourine’, noting that the title of the revised chapter would be ‘Infection with *Trypanosoma equiperdum* (dourine)’. However, the Group proposed that further development on this draft chapter be postponed until feedback is received from the Scientific Commission for Animal Disease on their work on draft Chapter 8.X.

6. Finalisation and adoption of the draft report

The Group reviewed and amended the draft report. The Group agreed that the report reflected the discussions.

.../Appendices

Appendix I

VIRTUAL MEETING OF THE OIE AD HOC GROUP ON SURRA AND DOURINE
30 April to 24 June 2021

Terms of reference

Purpose

The purpose of the *ad hoc* Group on surra and dourine is to continue the work initiated in 2015 and draft a *Terrestrial Code* Chapter on surra and update current *Terrestrial Code* Chapter 12.3 ‘Dourine’.

This *ad hoc* group is convened under the authority of, and reports to, the OIE Director General.

Background

In 2015 and 2016, an *ad hoc* Group on equine trypanosomosis was convened by the OIE Director General to draft a chapter on surra and amend the *Terrestrial Code* Chapter 12.3 ‘Dourine’.

In September 2016, the Scientific Commission (SCAD) agreed with the *ad hoc* Group’s proposal to draft/revise two separate chapters to cover equine trypanosomes:

- draft Chapter 8.X. ‘Infection with *Trypanosoma evansi* (not including equine surra).
- extend the scope of the *Terrestrial Code* Chapter 12.3 ‘Dourine’ to encompass all trypanosomosis in equids, which would include dourine and equine surra.

However, Members expressed their disagreement with the suggested scope and approach of the proposal to modify the trypanosomoses-related Chapters in the *Terrestrial Code*. At the same time, an urgent request was received to develop a new *Terrestrial Code* Chapter on animal African trypanosomes.

Consequently, the SCAD and the Code Commission (TAHSC) agreed to put on hold the revision of Chapter 8.X and Chapter 12.3, and to progress the development of Chapter 8.Y on animal trypanosomes of African origin. This was done via an *ad hoc* Group on animal African trypanosomes, which met in March 2018; Chapter 8.Y will be presented for adoption at the 88th General Session of the OIE in May 2021.

In 2018, SCAD and TAHSC took note of the Member comments previously received on Chapters 8.X and 12.3 as well as the recommendations of the *ad hoc* Group on animal African trypanosomes, and agreed that the best compromise would be to cover animal trypanosomes in three separate *Terrestrial Code* chapters as follows:

1. Infection with animal trypanosomoses of African origin [Chapter 8.Y – several host and pathogen species]
2. Infection with *T. evansi* (surra) [Chapter 8.X – several host species]
3. Infection with *T. equiperdum* (dourine) [Chapter 12.3 – equine]

At the SCAD meeting of February 2019, the Commission confirmed that both *T. evansi* and *T. equiperdum* matched the listing criteria described in Chapter 1.2. of the *Terrestrial Code*.

Finally, at the SCAD meeting of February 2021, the case definitions for surra and dourine drafted by expert groups were endorsed and recommended for consideration in the subsequent drafting of Chapter 8.X and the amendment of Chapter 12.3.

Specific issues to be addressed

To support Members in the control of animal trypanosomes, provide recommendations for surveillance, and promote safe international trade, the *ad hoc* Group should:

1. draft *Terrestrial Code* Chapter 8.X. ‘Infection with *T. evansi* (surra)’, noting that it should cover multiple host species for *T. evansi*
2. amend *Terrestrial Code* Chapter 12.3. ‘Infection with *T. equiperdum* (dourine)’.

Considerations

The *ad hoc* Group members should consider:

- case definitions on infections with *T. evansi* and *T. equiperdum*, as endorsed by SCAD at its February 2021 meeting to inform on the scope and coverage of Chapters 8.X and 12.3
- advice from the TAHSC on Member comments received on draft *Terrestrial Code* Chapter 8.X and Chapter 12.3 circulated in its September 2017 meeting report
- *Terrestrial Code* Chapter 8.Y ‘Infection with animal trypanosomes of African origin’ adopted at the 88th General Session of the OIE in May 2021
- *Terrestrial Code* Chapter 12.3 ‘Dourine’
- *Terrestrial Manual* Chapters
 - 3.1.21. ‘*Trypanosoma evansi* infection (surra)’
 - 3.4.16. ‘Animal trypanosomoses (including tsetse-transmitted, but excluding surra and dourine)’
 - 3.5.3 ‘Dourine’.

All proposed amendments should be consistent with the structure and scope of the *Terrestrial Code*.

Prerequisites

Ad hoc Group members should:

- sign the OIE Undertaking on Confidentiality of information (if not done already)
- complete the Declaration of Interest form
- be familiar with the structure of the *Terrestrial Code* and the *Terrestrial Manual*, and the use of Glossary definitions
- read the working documents provided by the OIE Secretariat prior to the meeting
- agree on the appointment of the chair and rapporteur of the meeting
- contribute to discussions
- contribute to drafting text or assessment
- understand that the membership of the group may be retained between *ad hoc* Group meetings to ensure continuity of the work.

Deliverables

A meeting report including drafts for Chapter 8.X and the revised Chapter 12.3, and the rationale for proposed amendments.

Reporting / timeline

The *ad hoc* Group will deliver its report within 3 week(s) after its final meeting, which is anticipated to be held 24 June 2021.

Appendix II

VIRTUAL MEETING OF THE OIE AD HOC GROUP ON SURRA AND DOURINE
30 April to 24 June 2021

Agenda

1. Opening
 2. Adoption of the agenda and work plan, and appointment of chair and rapporteur.
 3. Development of the outlines of the draft Chapter 8.X. ‘Infection with *Trypanosoma evansi* (surra)’ and the revised Chapter 12.3. ‘Dourine’.
 4. Drafting the articles for these two Chapters.
 5. Finalisation and adoption of the report.
-

Appendix III

VIRTUAL MEETING OF THE OIE AD HOC GROUP ON SURRA AND DOURINE
30 April to 24 June 2021

List of participants**MEMBERS**

Prof Philippe Büscher Institute of Tropical Medicine Antwerp Belgium	Prof Noboru Inoue Obihiro University of Agriculture and Veterinary Medicine Japan	Prof Marisa Gonzatti (Chair) Universidad Simón Bolívar Venezuela
Prof Marc Desquesnes CIRAD - Bios France	Dr Laurent Hebert ANSES France	Prof Keisuke Suganuma Obihiro University of Agriculture and Veterinary Medicine Japan
Dr Nick Van Reet Institute of Tropical Medicine Antwerp Belgium		Prof Grace Adira Murilla KAG EAST University Kenya

REPRESENTATIVES OF OIE SPECIALIST COMMISSIONS

Dr Baptiste Dungu Member of OIE Scientific Commission for Animal Diseases CEO Onderstepoort Biological Products South Africa	Dr Bernardo Todeschini Member of OIE Terrestrial Animal Health Code Commission Agricultural Attaché Ministry of Agriculture, Livestock and Food Supply Brazil
---	--

OIE PARTICIPANTS

Gregorio Torres Head of Science Department	Antonino Caminiti Chargé de mission Science Department	Serin Shin Scientific Coordinator Science Department
Jenny Hutchison Deputy Head of Science Department	Rachel Tidman Global Rabies Coordinator Science Department	Charmaine Chng Wency Chargée de mission Standards Department

Appendix IV**REFERENCES**

1. Aregawi W.G., Agga G.E., Abdi R.D. & Büscher P. (2019). – Systematic review and meta-analysis on the global distribution, host range, and prevalence of *Trypanosoma evansi*. *Parasites & Vectors*, **12** (1), 67. doi:10.1186/s13071-019-3311-4.
 2. Desquesnes M., Holzmüller P., Lai D.H., Dargantes A., Lun Z.R. & Jittapalapong S. (2013). – *Trypanosoma evansi* and Surra: A Review and Perspectives on Origin, History, Distribution, Taxonomy, Morphology, Hosts, and Pathogenic Effects. *BioMed Research International*, **2013**, 1–22. doi:10.1155/2013/194176.
 3. Büscher P., Gonzatti M.I., Hébert L., Inoue N., Pascucci I., Schnaufer A., Suganuma K., Touratier L. & Van Reet N. (2019). – Equine trypanosomosis: enigmas and diagnostic challenges. *Parasites Vectors*, **12** (1), 234. doi:10.1186/s13071-019-3484-x.
 4. Wang Z.L. (1988). – The similarities and differences of the characteristics between *T. equiperdum* and *T. evansi*. *Bul. Vet. Col. (PLA) (Chinese)*, **8**, 300–3.
 5. Uche U.E. & Jones T.W. (1992). – Pathology of experimental *Trypanosoma evansi* infection in rabbits. *Journal of Comparative Pathology*, **106** (3), 299–309. doi:10.1016/0021-9975(92)90057-2.
 6. Katz J.B., Gidlewski T., Thomsen B., Winter A., Hicks J. & Claes F. – Comparison of three reference *Trypanosoma equiperdum* isolates in ponies: clinical, serologic, and pathologic results with possible implications for transmission. Unpublished.
 7. Hoare C.A. (1972). – *The trypanosomes of mammals: a zoological monograph*. Blackwell Scientific Publications, Oxford.
 8. Wernery U., Zachariah R., Mumford J.A. & Luckins T. (2001). – Preliminary Evaluation of Diagnostic Tests Using Horses Experimentally Infected with *Trypanosoma evansi*. *The Veterinary Journal*, **161** (3), 287–300. doi:10.1053/tvjl.2000.0560.
 9. Mandal M., Laha R. & Sasmal N.K. (2014). – Experimental studies on survivability and degenerative changes of *Trypanosoma evansi* after death of host. *J Parasit Dis*, **38** (4), 361–366. doi:10.1007/s12639-013-0245-1.
 10. Desquesnes M. (2021) – Up to 72 hours in serum sample in laboratory conditions (personal observation).
 11. Aquino L.P.C.T. de, Machado R.Z., Alessi A.C., Marques L.C., Castro M.B. de & Malheiros E.B. (1999). – Clinical, Parasitological and Immunological Aspects of Experimental Infection with *Trypanosoma evansi* in Dogs. *Mem. Inst. Oswaldo Cruz*, **94** (2), 255–260. doi:10.1590/S0074-02761999000200025.
-

Original: English
September, 2021

**REPORT OF THE VIRTUAL MEETING OF THE OIE AD HOC GROUP ON THE REVISION OF
BSE STANDARDS AND THE IMPACT OF THIS REVISION ON THE OFFICIAL STATUS
RECOGNITION**

21, 23, 28, 29, 30 June, and 1 July 2021

A virtual meeting of the OIE *ad hoc* Group on the revision of bovine spongiform encephalopathy (BSE) standards and its impact on the official status recognition (the Group) was held on 21, 23, 28, 29, 30 June, and 1 July 2021 to conduct an assessment of the impact of BSE revised provisions on the Members having an officially recognised BSE risk status by the OIE. The Group also addressed selected Members' comments referred by the Terrestrial Animal Health Standards Commission (Code Commission) during its review of the revised draft Chapters 11.4. and 1.8. at its February 2021 meeting.

This is a continuation of the work initiated by the *ad hoc* Group on BSE risk assessment which met in July¹ and November 2018², the *ad hoc* Group on BSE surveillance which met in October 2018³, and the two *ad hoc* Groups on BSE risk assessment and surveillance which met in March 2019⁴ and June 2020⁵.

1. Opening

Dr Matthew Stone, OIE Deputy Director General for International Standards and Science, welcomed the Group on behalf of Dr Monique Eloit, Director General of the OIE.

Dr Stone commended the Group for the significant achievements made to date on the revision of BSE standards and their contribution to this work in the previous meetings and thanked the experts for their time, commitment, and involvement in the standard-setting process. Dr Stone welcomed Drs Baptiste Dungu and Bernardo Todeschini, respectively representing the Scientific Commission and the Code Commission at this meeting. Dr Stone reminded the Group that the purpose of the meeting was not to reassess the status of Members, but to determine if the issues that prevented a Member from gaining a negligible exposure assessment at the time when the official risk status was initially granted have been resolved since then based on the information submitted via the annual reconfirmations. A negligible exposure assessment was not previously required for the overall assessment of negligible or controlled risk, but it will be required following the revision of the standard. Following an inquiry from the Group regarding the potential impact of the revised BSE provisions on Members, Dr Stone clarified that the revised provisions have been developed based on scientific evidence to help Members to adapt and enhance their risk assessment and surveillance systems. He reiterated that the objective of this meeting was to assess the potential impact of the ongoing revision of the BSE standards on the official status recognition and to provide every opportunity for successful maintenance of Members' BSE risk status after the foreseen adoption of the new BSE standards in May 2022.

¹ The July 2018 report of the meeting of the OIE *ad hoc* group on BSE risk assessment can be found [here](#):

² The November 2018 report of the meeting of the OIE *ad hoc* group on BSE risk assessment can be found [here](#):

³ The October 2018 report of the meeting of the OIE *ad hoc* group on BSE surveillance can be found [here](#):

⁴ The March 2019 report of the meeting of the OIE *ad hoc* group on BSE risk assessment and surveillance can be found [here](#):

⁵ The June 2020 report of the meeting of the OIE *ad hoc* group on BSE risk assessment and surveillance can be found [here](#):

The experts were thanked for having signed the forms for undertaking of confidentiality and declaration of interests. No potential conflict of interests were identified in relation to the Terms of Reference (ToR) of this meeting.

Dr Neo Mapitse, Head of the OIE Status Department, provided a brief overview of the ToR and tentative daily agenda of the meeting. Finally, Dr Mapitse introduced the OIE Secretariat supporting the work of the Group and Dr Yoenten Phuentshok, participating as an observer, who recently joined the Status Department.

2. Adoption of the agenda and appointment of Chairperson and Rapporteur

The Group was chaired by Dr Noel Murray and Dr Lesley van Helden acted as rapporteur, with the support of the OIE Secretariat. The Group endorsed the proposed agenda.

The ToR, agenda and list of participants are provided as Appendices I, II and III, respectively.

3. Assessment of the impact that the revised BSE provisions may have on the Members already having an officially recognised BSE risk status

According to the current provisions of Article 11.4.2. point 1. b) of the *Terrestrial Code*, an exposure assessment should be conducted if a risk factor is identified at the entry assessment. Consistent with this provision, some Members were granted an official BSE risk status based on a negligible risk of entry despite a non-negligible exposure assessment. The revised BSE provisions would require conducting an exposure assessment with demonstration of negligible risk of BSE agents being recycled in the cattle population, regardless of the outcome of the entry assessment. This requirement may have an impact on the BSE risk status of some Members already having an official status recognised by the OIE.

The OIE Status Department proposed an approach to assess the impact of the revised provisions on the recognised BSE risk status. This approach was endorsed by both the joint *ad hoc* Group on BSE risk assessment and surveillance at its March 2019 meeting, and by the Scientific Commission at its September 2019 meeting. The proposed approach had as objectives: a) to identify Members with a non-negligible exposure assessment at the time of official status recognition, b) to identify the issue(s) at the time of recognition that did not allow for a negligible exposure assessment, and c) to identify if the issue(s) had been addressed since the time of recognition.

Based on the above-mentioned approach, 18 out of 61 Members or zones having a BSE risk status were identified with a non-negligible exposure assessment at the time of official recognition: 14 out of 18 with negligible BSE risk status and four with controlled BSE risk status.

The Group could not conclude whether the exposure risk (i.e., likelihood of recycling and amplification of BSE agent, if it were present in the cattle population) could be considered negligible for seven Members or zones having a negligible BSE risk status, and for one Member having a controlled BSE risk status. The Group recommended that these eight Members or zones submit additional information when reconfirming their BSE risk status in November 2021 to prevent any issue on their maintenance of BSE risk status once the new standards are adopted.

The Group also assessed a further seven Members having a negligible BSE risk status, and two Members and one zone having a controlled BSE risk status. For the Members having a negligible BSE risk status, the Group concluded that based on the information available in the dossiers submitted when their BSE risk status was initially recognised and the information provided annually to reconfirm their BSE risk status, their exposure assessments could still be considered negligible, and these Members would not be impacted by the new standards once they are adopted. For the Members and a zone having a controlled BSE risk status, the Group concluded that based on the information available in the dossiers submitted when their BSE risk status was initially recognised and the information provided annually to reconfirm their BSE risk status, their controlled BSE risk status would not be impacted by the new standards once they are adopted.

4. Revision of the draft annual reconfirmation for maintenance of BSE risk status

The Group took note of the recommendations made by the 2019 *ad hoc* Group on BSE risk assessment and surveillance, which were endorsed by the Scientific Commission at its 2019 September meeting, on the relevant information that Members will need to provide to show evidence of compliance with the revised Articles 11.4.3. and 11.4.4. of the *Terrestrial Code* to be retained on the list of countries or zones with negligible or controlled BSE risk status.

The Group highlighted that the main issue of the current annual reconfirmation form is the lack of consistency with the current questionnaire. In addition, the OIE Status Department pointed out that the lack of specificity and consistency between both annual reconfirmation form and questionnaire created confusion for Members on what relevant information to provide when reconfirming their BSE risk status. Moreover, the Group discussed the level of detail needed in the information to be provided by Members to comply with the revised standards and specifically under Point 2 of Article 11.4.18. related to surveillance.

Considering the above-mentioned topics, and guided by the revised standards, the Group drafted and agreed a proposed annual reconfirmation form. In addition, the Group suggested that Members be requested to provide an updated risk assessment when selected for comprehensive review by the Scientific Commission.

5. Revision of the plan to obtain the ‘period for which the risk of recycling of BSE agents in the cattle population can be considered to be negligible’ for all Members with a BSE risk status

The Group acknowledged that the risk posed by the cattle population born during ‘the period when the risk of the BSE agents being recycled in the cattle population has been demonstrated to be negligible’ is different from that posed by the cattle population born before that same period. Hence, provisions for trade of commodities are different for animals born within that period than for those born before. The Group made reference to the revised Article 11.4.10 “*Recommendations for importation of fresh meat and meat products from a country, zone or compartment posing a negligible or controlled BSE risk*” to emphasise the importance of making this information publicly available for trade purposes.

Based on an approach proposed by the OIE to determine this period for Members having a negligible or controlled BSE risk status, the Group concluded that this period would be calculated as the eight years preceding the year of official recognition of a negligible BSE risk status. However, for those Members having a controlled BSE risk status, the Group concluded that this period could not be determined and suggested that these Members submit evidence that could determine this period after the adoption of the new standards.

The Group acknowledged that it will be the OIE’s responsibility to determine a transparent way to make the information publicly available.

6. Consideration of Member comments on the draft revised Chapter 11.4.

The Group considered selected Members’ comments on the draft revised Chapter 11.4 referred by the Code Commission during its February 2021 meeting.

a) Draft Article 11.4.2. General criteria for the determination of the BSE risk of a country, zone or compartment

The Group discussed a Member’s proposal to add ‘sheep and goats’ in the commodities that should be considered in the entry assessment under Point 1.a.i. The Group acknowledged the scientific evidence cited by the Member on the emergence of classical BSE from atypical/Nor98 scrapie in small ruminants⁶. The Group was of the opinion that although the evidence provided represents a hazard of interest, the revised standards account for mitigation strategies to avoid the exposure of cattle to ruminant-derived protein

⁶ Huor, A., Espinosa, J. C., Vidal, E., Cassard, H., Douet, J. Y., Lugan, S., Aron, N., Marín-Moreno, A., Lorenzo, P., Aguilar-Calvo, P., Badiola, J., Bolea, R., Pumarola, M., Benestad, S. L., Orge, L., Thackray, A. M., Bujdoso, R., Torres, J. M., & Andreoletti, O. (2019). The emergence of classical BSE from atypical/Nor98 scrapie. Proceedings of the National Academy of Sciences of the United States of America, 116(52), 26853–26862. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6936354/>

irrespective of the source of that ruminant-derived protein. Therefore, the Group considered that no further amendments to the revised provisions were needed. In addition, the Group reminded Members that in the exposure assessment, the revised provisions focus on ensuring that cattle are not exposed to ruminant-derived protein meal based on the livestock industry practices or mitigation measures.

With reference to Point 1.d., the Group considered the Code Commission's request to advise whether a description for other transmission pathways should be included in this point. The Group stressed that the transmission pathway referred to in this Article is the principal pathway accounting for the vast majority, if not all, of BSE transmission in cattle. Therefore, the Group considered it unnecessary to include further amendments in this Article.

The Group agreed with a Member's proposal to add the provision 'Indicate the period of time for which it can be considered that the risk of BSE agents being recycled in the cattle population has been negligible' under Point 1.d of the revised Article 11.4.2. The Group noted that this provision was already included in the questionnaire under Point 4.d. of the revised Article 1.8.5 and considered that it should also be included under Point 1.d of the revised Article 11.4.2.

b) Draft Article 11.4.16bis. Recommendations for importation of tallow derivatives (other than as defined in Article 11.4.1bis.) intended for food, feed, fertilisers, cosmetics, pharmaceuticals including biologicals, or medical devices

The Group discussed a Member's request seeking clarification on the parameters for temperature, time and pressure to safely produce tallow derivatives under Point 3. The Group stated they could not specify any particular parameter because there is a wide variation in the conditions under which these products are produced, based on the evidence available in literature. The Group noted that these conditions have been accepted over the years in the current BSE Chapter, and in the absence of no new scientific evidence, suggested to maintain the text as it is.

The Group suggested a minor amendment in Point 3 of this Article to improve clarity.

7. Finalisation and adoption of the report

The Group reviewed the draft report and agreed to circulate it electronically for comments before the final adoption.

.../Appendices

VIRTUAL MEETING OF THE OIE AD HOC GROUP ON THE REVISION OF BSE STANDARDS AND THE IMPACT OF THIS REVISION ON THE OFFICIAL STATUS RECOGNITION

21, 23, 28, 29, 30 June, and 1 July 2021

Terms of reference

Purpose

The purpose of this *ad hoc* Group (the Group) is to conduct an assessment of the impact of BSE revised provisions on the Members with a currently officially recognised status, and to provide independent analysis and advice to the OIE in response to the comments received from the Members regarding the revised draft Chapters 11.4 and 1.8 for the recognition and maintenance of BSE risk status as well as the recommendations for international trade.

The Group is convened under the authority of and reports to the OIE Director General.

Background

In February 2018, the Terrestrial Animal Health Standards Commission (Code Commission) and the Scientific Commission for Animal Diseases (Scientific Commission) agreed on an in-depth review of Chapter 11.4, Bovine spongiform encephalopathy (BSE). Since July 2018, the OIE has convened five *ad hoc* Groups on bovine spongiform encephalopathy (BSE) to complete the revision of the BSE standards: two *ad hoc* Groups on risk assessment (July 2018 and November 2018), one *ad hoc* Group on surveillance (October 2018), and two joint *ad hoc* Groups on risk assessment and surveillance (March 2019 and June 2020). During its September 2019 meeting, the Code Commission reviewed the reports of the first four *ad hoc* Group meetings and the opinion of the Scientific Commission regarding the revised draft chapter, and circulated the revised chapter for comments for the first time.

During its June 2020 meeting (second joint meeting), the Group reviewed the amendments made by the Code Commission at its February 2020 meeting on Chapter 11.4 upon circulation with Members for comments, and revised Chapter 1.8 to address any remaining matters emerging from the revision of Chapter 11.4 ensuring full consistency between the BSE questionnaire and the draft Chapter 11.4. The report of the second joint meeting by the Group was reviewed by the Code Commission at its September 2020 meeting, and the revised Chapters were circulated for second time for Members' comments. The Code Commission, at its February 2021 meeting, reviewed the comments received from Members on the revised Chapters and requested further expert advice on some comments.

Following the revision of BSE standards, an assessment of the impact of the revised provisions on currently officially recognized Members needs to be conducted to identify issues that can potentially affect their status. In a similar way, the requirements for maintenance of BSE risk status have to be in line with the revised provisions; therefore, the draft form for annual reconfirmation of BSE risk status also needs to be reviewed and finalised.

Pre-requisites

Group members should:

- Sign the OIE Undertaking on Confidentiality of information (if not done already);
- Complete the Declaration of Interest Form.
- Understand that the membership of the Group may be retained between *ad hoc* Group meetings to ensure continuity of the work.

Actions to deliver

The members of this Group will conduct the following actions:

1. Conduct the assessment of the impact that the revised BSE provisions may have on the status of Members currently officially recognised with a BSE risk status.

Propose the next steps to follow for each Member considering the information in the summary sheets prepared by the OIE Secretariat and any other relevant additional information. The purpose is to assist Members to comply with the revised BSE provisions as soon as possible to prevent suspensions in the future.

2. Revise and endorse the draft annual reconfirmation form for maintenance of BSE risk status.

Revise and endorse the draft annual reconfirmation form developed for maintenance of BSE risk status based on the conclusions of the *ad hoc* Group on the revision of BSE standards on risk assessment and surveillance that met in March 2019, which were endorsed by the Scientific Commission in September 2019.

3. Revise and endorse the plan to obtain and publish the ‘period for which the risk of recycling of BSE agents in the cattle population can be considered to be negligible’ for all Members with a BSE risk status.

4. Address the Members’ comments to the revision of Chapter 11.4.:

- a. Draft Article 11.4.16bis. (Recommendations for importation of tallow derivatives)
 - *Provide opinion on the requirements (temperature, time and pressure) of the methods used safely produce tallow derivatives.

- b. Draft Article 11.4.2. (The BSE risk of the cattle population of a country, zone or compartment)
 - Consider the proposal of a Member in point 1 (a)(i) to add ‘sheep and goats’ in the commodities that should be considered in the entry assessment taking into consideration point 2 of Article 11.4.1.
 - Consider the proposal of a Member to delete ‘through the feeding of ruminant-derived protein meal, with indigenous cases arising’ in point 1 (d).

5. Further revise Chapter 1.8. (the BSE questionnaire):

Address any remaining matters emerging from the revision of Chapter 11.4., ensuring full consistency between the questionnaire and the draft Chapter 11.4.

Point marked with an * will be discussed if time permits.

Deliverables

The Group is expected to produce a detailed report with the outcome for each of the activities listed above. Should the *ad hoc* Group not be able to complete its Terms of reference during this meeting, experts’ contributions will be solicited after the meeting, including by teleconference(s) if needed.

Reporting / Timeline

The OIE will circulate the draft report no more than seven days after the virtual meeting (not later than 8 July 2021) and the Group will finalise its report within the following week (deadline: 15 July 2021).

**VIRTUAL MEETING OF THE OIE AD HOC GROUP ON THE REVISION OF BSE STANDARDS
AND THE IMPACT OF THIS REVISION ON THE OFFICIAL STATUS RECOGNITION**

21, 23, 28, 29, 30 June, and 1 July 2021

Agenda

1. Opening.
 2. Adoption of the agenda and appointment of chairperson and rapporteur.
 3. Assessment of the impact that the revised BSE provisions may have on the Members already having an officially recognised BSE risk status
 4. Revision of the draft annual reconfirmation for maintenance of BSE risk status.
 5. Revision of the plan to obtain the ‘period for which the risk of recycling of BSE agents in the cattle population can be considered to be negligible’ for all Members with a BSE risk status.
 6. Consideration of Member comments on the draft revised Chapter 11.4.
 7. Finalisation and adoption of the report
-

Appendix III

**VIRTUAL MEETING OF THE OIE AD HOC GROUP ON THE REVISION OF BSE STANDARDS
AND THE IMPACT OF THIS REVISION ON THE OFFICIAL STATUS RECOGNITION**

21, 23, 28, 29, 30 June, and 1 July 2021

Lit of participants

Members

Dr Lesley van Helden State Veterinarian – Epidemiology Animal Health Programme Veterinary Service Directorate Department of Agriculture Western Cape Government Elsenburg SOUTH AFRICA	Dr Ximena Melón Directora Nacional de Sanidad Animal Servicio Nacional de Sanidad y Calidad Agroalimentaria (SENASA) Buenos Aires ARGENTINA	Dr Noel Murray Senior Advisor on Risk Analysis Canadian Food Inspection Agency Ottawa CANADA
Dr Torsten Seuberlich Professor University of Bern Vetsuisse Faculty Division of Neurological Sciences Division of Experimental Clinical Research Bremgartenstrasse 109 a 3001 Bern SWITZERLAND	Dr Mark Stevenson Professor of Veterinary Epidemiology The University of Melbourne Faculty of Veterinary and Agricultural Sciences Melbourne AUSTRALIA	

Representatives from the Specialist Commissions

Dr Baptiste Dungu Member of the Scientific Commission for Animal Diseases Edinburg, Scotland UNITED KINGDOM	Dr Bernardo Todeschini Member of the Terrestrial Animal Health Standards Commission. Federal Superintendent of Agriculture for Rio Grande do Sul Ministry of Agriculture, Livestock and Food Supply BRAZIL
--	--

OIE Headquarters

Dr Matthew Stone Deputy Director General oie@oie.int	Dr Min Kyung Park Deputy Head of Status Department disease.status@oie.int	Dr Yoenten Phuentshok Disease Status Officer Status Department disease.status@oie.int
Dr Neo J. Mapitse Head of the Status Department disease.status@oie.int	Dr Aurelio Cabezas Disease Status Officer Status Department disease.status@oie.int	Dr Yukitake Okamura Scientific Officer Standards Department standards.dept@oie.int

Appendix IV

**Proposal Form for the annual reconfirmation of
bovine spongiform encephalopathy (BSE) risk status of OIE Members**

QUESTION		YES	NO
1.	Have any cases of classical BSE occurred in the past 12 months in indigenous cattle born within the last 8 years?		
2.	Have all cases of BSE that have been detected within the past 12 months been completely destroyed and disposed of?		N/A
3.	Have any modifications in the legislation regarding BSE been made during the past 12 months?		
4.	Have there been any changes in the livestock industry practices in the last 12 months as described under Point 1.b.i of Article 11.4.2. that are likely to have an impact on preventing cattle from being fed ruminant-derived protein meal?		
5.	Have there been any changes to BSE specific mitigation measures in the last 12 months as described under Point 1.b.ii of Article 11.4.2. that are likely to have an impact on preventing cattle from being fed ruminant-derived protein meal?		
6.	Has the risk assessment for BSE in accordance with Article 11.4.2 been reviewed by the Competent Authority of the country/zone through incorporation of documented evidence for the past 12 months? a) Has the likelihood that the classic BSE agent has been introduced into the country or zone through the importation of the following commodities in accordance with the requirements at least as strict as those in Chapter 11.4. during the past 12 months remained negligible: i. Cattle? ii. Ruminant-derived protein meal? iii. Feed (not intended for pets) that contains ruminant-derived protein meal? iv. Fertilizers that contain ruminant derived protein meal? v. Any other commodity that either is or could be contaminated by commodities listed in article 11.4.14.? b) Has the likelihood of cattle being exposed to BSE either through imported commodities or as a result of the presence of BSE agents in the indigenous cattle population of the country or zone continued to be negligible during the past 12 months as a result of: i. Livestock industry practices that have prevented cattle from being fed ruminant derived protein meal as described under Point 1.b.i of Article 11.4.2.? ii. Specific risk mitigation measures that have prevented cattle from being fed ruminant derived protein meal as described in Point 1.b.ii of Article 11.4.2.?		
7.	If cattle were likely to have been exposed to the BSE agents during the past 12 months, was the likelihood of cattle becoming infected following exposure to the BSE agents negligible as described under Point 1.c of Article 11.4.2.?		

8.	If cattle were likely to have become infected with the BSE agents during the past 12 months, is the likelihood that the BSE agents will be subsequently recycled in the cattle population negligible as described under Point 1.c of Article 11.4.2.?		
9.	a) Has the surveillance programme continued to report and test all animals that show signs of clinical BSE during the past 12 months as described under Point 2 of Article 11.4.18.? Please provide supportive information by completing Table 1 below.		
	b) Have the awareness and training programmes for the different stakeholder groups continued to be implemented during the past 12 months as described in Point 3 of Article 11.4.18.?		
	c) Has BSE continued to be compulsorily notifiable through the whole territory during the past 12 months?		
	d) Have all tests for BSE been conducted in accordance with the <i>Terrestrial Manual</i> during the past 12 months?		

**Please provide relevant documented evidence substantiating your answers to questions 3 to 9.

** Note: according to articles 11.4.3 (Negligible BSE risk) and 11.4.4 (Controlled BSE risk) of the *Terrestrial Code*, retention on the list requires that supportive information be provided on risk assessment, surveillance, and occurrence and disposal of BSE cases.

Table 1 - Summary of all cattle with clinical signs suggestive of BSE that were reported and evaluated by the Veterinary Services

Please provide the approximate number of the country's cattle population over 24 months:

Clinical presentation (see Article 11.4.18 point 2)	Number reported	Number tested for BSE
Cattle displaying progressive neurological signs suggestive of BSE that are refractory to treatment		
Cattle showing neurological signs that did not pass the ante-mortem inspection at slaughterhouses/abattoirs		
Cattle presented as downers (non-ambulatory) with an appropriate supporting clinical history		
Cattle found dead (fallen stock) with an appropriate supporting clinical history		

**IMPLICATIONS OF INTRODUCING VACCINATED ANIMALS
INTO AN FMD-FREE COUNTRY OR ZONE WHERE VACCINATION IS NOT PRACTISED**

1. Objective

The purpose of this paper is to provide an overview of the implications of introducing vaccinated animals into a country or zone free from FMD where vaccination is not practised. In particular, this paper will examine: i) the recommendations for safe importation of vaccinated animals into a country or zone free from FMD where vaccination is not practised; ii) the impact on traceability and surveillance for demonstrating absence of FMDV infection/transmission; and iii) implications for the OIE's official animal health status recognition and maintenance procedures.

2. Background

According to Point 4d) of Article 8.8.2. of the *Terrestrial Code*, the introduction of vaccinated animals is not allowed (even those originating from countries or zones free from FMD) – except in the case of direct transfer of FMD susceptible animals within the same country for slaughter in accordance with Articles 8.8.8. or 8.8.9. – for the achievement and maintenance of an official status ‘FMD-free country or zone where vaccination is not practised’. Based on Members requests, in the draft revised chapter 8.8., provisions were introduced for the importation of vaccinated animals from countries or zones free from FMD where vaccination is practised destined for slaughter (Article 8.8.11bis) and not destined for slaughter (Article 8.8.11.).

At its February 2021 meeting, the Scientific Commission for Animal Diseases (SCAD) raised a concern on point 4e) of the draft revised Article 8.8.2. allowing the importation of vaccinated animals (not destined for slaughter) according to Article 8.8.11., as this would bring implications to surveillance and the demonstration of absence of FMDV infection. This concern was raised by SCAD during the Meeting of the Bureaus of the Code Commission (TAHSC) and SCAD that took place on 5 February 2021, and it was agreed that a joint taskforce composed by members of TAHSC and SCAD would address this issue before the September 2021 Specialist Commissions meetings.

3. Introduction of vaccinated animals into an FMD-free country or zone free where vaccination is not practised, and resulting implications

i) Recommendations for safe importation of vaccinated animals into a country or zone free from FMD where vaccination is not practised

During the discussions of the TAHSC-SCAD taskforce (June-July 2021), it was agreed that the provisions in the draft revised Articles 8.8.11. and 8.8.12. would provide the necessary assurances for safe trade of vaccinated animals into an FMD-free country or zone where vaccination is not practised. In other words, if vaccinated domestic ruminants and pigs had been subjected to both virological and NSP serological tests (ref. Point 4 of the article below) according to the tests fit for purpose in the *Terrestrial Manual*, it would provide the necessary assurances for detection of FMDV and thus prevention of potential introduction of it into an FMD-free country or zone. The taskforce underlined that the virological test should consider all FMDV serotypes.

Article 8.8.11.

Recommendations for importation from FMD-free countries, or zones or compartments free from FMD where vaccination is practisedFor domestic ruminants and pigs

Veterinary Authorities should require the presentation of an *international veterinary certificate* attesting that the animals:

- 1) showed no clinical sign of FMD on the day of shipment;
- 2) were kept since birth or for at least the past three months in a FMD-free country, or zone or compartment free from FMD where vaccination is practised;
- 3) if not vaccinated were subjected to a virological and serological tests for FMD with negative results on samples collected not earlier than 14 days before the shipment;
- 4) if vaccinated were subjected to virological and NSP serological tests for FMD with negative results on samples collected not earlier than 14 days before the shipment;
- 5) if transiting an infected zone, were not exposed to any source of FMDV during transportation to the *place of shipment*.

ii) Impact on traceability and surveillance in demonstrating absence of FMDV infection/transmission

The taskforce highlighted the need to modify the surveillance strategy and design to substantiate the absence of FMDV in the different subpopulations (vaccinated and unvaccinated), following the introduction of vaccinated animals into a country or zone free from FMD where vaccination is not practised. The Member concerned should demonstrate absence of infection with FMDV in unvaccinated subpopulation, and no transmission of FMDV in the newly introduced or previously vaccinated subpopulation. Demonstration of such should be considered in the strategy and design of the surveillance programme, and documented evidence should be provided for the official recognition and maintenance of an FMD-free status. This will likely create logistical challenges for the Veterinary Services in conducting surveillance. Moreover, the FMD surveillance provisions may require further review to ensure that they are adequate to guide Members on the appropriate level of surveillance in an area with a mix of vaccinated and unvaccinated animals. Having adequate surveillance provisions is also important for the maintenance of Members' official FMD-free status so that they do not run the risk of suspension of their status due to implementation of an inappropriate surveillance strategy.

The taskforce also suggested that an animal identification system be used to differentiate unvaccinated from vaccinated cattle aiming to facilitate surveillance strategies, interpretation of the results of the diagnostic tests applied and any follow up activities that may be required. In this context, the taskforce reiterated the importance of using FMD vaccines fully compliant with the standards and methods described in the *Terrestrial Manual*; vaccines should not induce antibodies that would interfere with serological tests used for sero-surveillance of virus circulation in vaccinated populations. Moreover, this differentiated individual identification would be important for the purpose of transparency in international trade. In other words, it should be clear to the importing country whether the animals had been previously vaccinated or not.

The taskforce also agreed that vaccination should remain prohibited in the country or zone free from FMD where vaccination is not practised.

iii) Implications for the OIE's official animal health status recognition and maintenance procedure

While discussing the points summarised above, the taskforce considered the implications for the OIE's official animal health status recognition and maintenance procedures, in particular how this change in the provisions could affect the different subpopulations (vaccinated and unvaccinated animals) kept in the same country or zone having an FMD-free status where vaccination is not practised.

- a. **Maintenance of status 'free from FMD where vaccination is not practised'?** As noted under point i) above, the taskforce was of the opinion that the provisions in the draft revised Articles 8.8.11. and 8.8.12. provide the necessary assurances for the movement of vaccinated animals into an FMD-free country or zone where vaccination is not practised, irrespective of the number of vaccinated FMD susceptible animals imported. This would result in potentially having different proportions of vaccinated and unvaccinated animals in the respective country or zone.
- b. **Provisions on surveillance and the assessment of Members surveillance data for maintenance of FMD-free status:** Currently, for the maintenance of Members' official status, the annual reconfirmations are assessed by the Status Department with a 10% of each disease status comprehensively reviewed by SCAD each year. Considering the possibility of having a broad range of different vaccinated and unvaccinated animals kept in the same country or zone having an official status and the increased complexity in the surveillance information – compared to the current situation – provided by Members during the annual reconfirmation campaign, expert consultation (i.e., *ad hoc* Group meeting) for the assessment of surveillance strategy and resulting data may become a necessary step prior to the review and endorsement by SCAD, recommending Members' official FMD status, in its February meetings. As noted above in point ii), it would also be important that adequate surveillance provisions are defined and available for Members to have clear understanding of the requirements for successful maintenance of their official FMD-free status, without running the risk of suspension of their status due to implementation of an inappropriate surveillance strategy.

4. Final remarks and possible next steps

As described above, draft revised Articles 8.8.11. and 8.8.12. provide the necessary assurances for the safe trade of vaccinated animals into an FMD-free country or zone where vaccination is not practised. At the same time, there are quite significant implications that should be considered particularly for the OIE official animal health status recognition and maintenance procedures, as well as the adjustment of surveillance strategies by Members and the assessment of this information by the OIE.

SUMMARY OF THE EXPERT ASSESSMENT FOR WEST NILE FEVER

September 2021

Three experts participated in this consultation:

- Dr Albert Van Geelen (OIE Reference Laboratory for West Nile Fever, National Veterinary Services Laboratory, United States)
- Dr Sylvie Lecollinet (UMR ASTRE CIRAD-INRAE, Guadeloupe, France)
- Dr Giovanni Savini (Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise "Giuseppe Caporale", Italy).

The table below presents the expert assessment against the criteria listed in Chapter 1.2.

	Experts	CRITERION 1: International spread of the pathogenic agent (via live animals or their products, vectors or fomites) has been proven	CRITERION 2: At least one country has demonstrated freedom or impending freedom from the disease, infection or infestation in populations of susceptible animals, based on the provisions of Chapter 1.4.	CRITERION 3: Reliable means of detection and diagnosis exist and a precise case definition is available to clearly identify cases and allow them to be distinguished from other diseases, infections or infestations.	CRITERION 4a: Natural transmission to humans has been proven, and human infection is associated with severe consequences.	CRITERION 4b: The disease has been shown to have a significant impact on the health of domestic animals at the level of a country or a zone taking into account the occurrence and severity of the clinical signs, including direct production losses and mortality.	CRITERION 4c: The disease has been shown to, or scientific evidence indicates that it would, have a significant impact on the health of wildlife taking into account the occurrence and severity of the clinical signs, including direct economic losses and mortality, and any threat to the viability of a wildlife population	CONCLUSION Does West Nile fever match the listing criteria that are described in the <i>Terrestrial Animal Health Code</i> Chapter 1.2
1	Albert Van Geelen	YES	YES	YES	YES	YES	YES	YES
2	Sylvie Lecollinet	YES	YES	YES	YES	YES	YES	YES
3	Giovanni Savini	YES	YES	YES	YES	YES	YES	YES

The experts' opinions and scientific rationale for each criterion are collated below:

Criterion 1: International spread of the pathogenic agent (via live animals or their products, vectors or fomites) has been proven.

(Van Geelen) The potential for intercontinental spread has been widely accepted given the well documented introduction and expansion of West Nile virus (WNV), the causative agent of West Nile Fever, into and across the United States, as well as the current expansion in Europe.

(Lecollinet) West Nile virus is a reemerging virus, with a high potential for transboundary spreading on different continents (America, Asia, Europe, Africa and the Middle East). It is primarily spread by migratory birds, with recent eco-epidemiological analysis supporting such an assertion and is locally amplified by mosquito vectors, mainly from the *Culex* genus.

(Savini) West Nile Virus (WNV) is introduced in a free country mainly through long or short distance migratory birds travelling from WNV infected areas and by international trade of WNV infected birds or reptiles.

REFERENCES

1. Hayes E.B., Komar N., Nasci R.S., Montgomery S.P., O'Leary D.R. & Campbell G.L. – Epidemiology and Transmission Dynamics of West Nile Virus Disease - Volume 11, Number 8—August 2005 - Emerging Infectious Diseases journal - CDC. doi:[10.3201/eid1108.050289a](https://doi.org/10.3201/eid1108.050289a).
2. Hubálek Z. & Halouzka J. – West Nile Fever—a Reemerging Mosquito-Borne Viral Disease in Europe - Volume 5, Number 5—October 1999 - Emerging Infectious Diseases journal - CDC. doi:[10.3201/eid0505.990505](https://doi.org/10.3201/eid0505.990505).
3. Rappole J.H., Derrickson S.R. & Hubálek Z. (2000). – Migratory birds and spread of West Nile virus in the Western Hemisphere. *Emerg Infect Dis*, **6** (4), 319–328. doi:[10.3201/eid0604.000401](https://doi.org/10.3201/eid0604.000401).
4. Roehrig J.T. (2013). – West Nile Virus in the United States — A Historical Perspective. *Viruses*, **5** (12), 3088–3108. doi:[10.3390/v5123088](https://doi.org/10.3390/v5123088).
5. Tran A., L'Ambert G., Balança G., Pradier S., Grosbois V., Balenghien T., Baldet T., Lecollinet S., Leblond A. & Gaidet-Drapier N. (2017). – An Integrative Eco-Epidemiological Analysis of West Nile Virus Transmission. *EcoHealth*, **14** (3), 474–489. doi:[10.1007/s10393-017-1249-6](https://doi.org/10.1007/s10393-017-1249-6).

Criterion 2: At least one country has demonstrated freedom or impending freedom from the disease, infection or infestation in populations of susceptible animals, based on the provisions of Chapter 1.4.

(Lecollinet) Several countries, such as in Europe (UK for example), have documented to be free of West Nile disease, through adapted surveys in animals and vectors and through continuous surveillance of diseases due to flaviviruses, including West Nile virus.

(Savini) Because of persistent or transitory adverse climatic conditions, many countries and several areas are historically free of WNV circulation.

REFERENCES

1. Brugman V.A., Horton D.L., Phipps L.P., Johnson N., Cook A.J.C., Fooks A.R. & Breed A.C. (2013). – Epidemiological perspectives on West Nile virus surveillance in wild birds in Great Britain. *Epidemiology & Infection*, **141** (6), 1134–1142. doi:[10.1017/S095026881200177X](https://doi.org/10.1017/S095026881200177X).
2. Phipps L.P., Duff J.P., Holmes J.P., Gough R.E., McCracken F., McElhinney L.M., Johnson N., Hughes L., Chantrey J., Pennycott T., Murray K.O., Brown I.H. & Fooks A.R. (2008). – Surveillance for West Nile virus in British birds (2001 to 2006). *Veterinary Record*, **162** (13), 413–415. doi:[10.1136/vr.162.13.413](https://doi.org/10.1136/vr.162.13.413).
3. Vaux A.G., Gibson G., Hernandez-Triana L.M., Cheke R.A., McCracken F., Jeffries C.L., Horton D.L., Springate S., Johnson N., Fooks A.R., Leach S. & Medlock J.M. (2015). – Enhanced West Nile virus surveillance in the North Kent marshes, UK. *Parasites & Vectors*, **8** (1), 91. doi:[10.1186/s13071-015-0705-9](https://doi.org/10.1186/s13071-015-0705-9).

Criterion 3: Reliable means of detection and diagnosis exist and a precise case definition is available to clearly identify cases and allow them to be distinguished from other diseases, infections or infestations.

(Lecollinet) A broad range of diagnostic assays, both serological and molecular, either in-house or commercial, are available (OIE terrestrial manual, chapter 3.01.24; ref 1-2) and allow for precise identification of WNV cases in equids and birds. A case definition would need to be specified, in particular for equids, such as the following one: Animal suffering from meningitis, encephalitis or meningo-encephalitis with at least one the following laboratory criteria fulfilled:

- positive IgM response (serum, CSF)
- increasing antibody titers (NAb for example) in 2 sera sampled 2-3 weeks apart
- positive RT-PCR or isolation (CSF, brain, blood or other submitted material).

(Van Geelen) The most commonly used molecular diagnostic techniques include reverse transcription polymerase chain reaction (RT-PCR), quantitative RT-PCR (qRT-PCR) and in situ hybridisation.

(Savini) WNV-specific reverse transcription quantitative PCR (RT-qPCR) assays are commercially available or easily reproducible in the lab. These assays can be used for all species and are highly sensitive and specific at least for the lineages 1 and 2. In many labs, they are also validated and accredited according to the ISO 17025. A modified pan-flavivirus RT-PCR followed by sequencing can be used if the presence of other WNV lineages is supposed. In case of diseased horses, often with neurological symptoms, serum samples are screened by IgM-and/or IgG-ELISA (commercial kits). To exclude cross-reacting flaviviruses, ELISA positive samples should be confirmed by virus neutralization tests (OIE Manual of Diagnostic tests and vaccines for the Terrestrial Animals, 2020).

REFERENCES

1. Beck C., Jimenez-Clavero M.A., Leblond A., Durand B., Nowotny N., Leparc-Goffart I., Zientara S., Jourdain E. & Lecollinet S. (2013). – Flaviviruses in Europe: Complex Circulation Patterns and Their Consequences for the Diagnosis and Control of West Nile Disease. *International Journal of Environmental Research and Public Health*, **10** (11), 6049–6083. doi:[10.3390/ijerph10116049](https://doi.org/10.3390/ijerph10116049).

2. Beck C., Lowenski S., Durand B., Bahuon C., Zientara S. & Lecollinet S. (2017). – Improved reliability of serological tools for the diagnosis of West Nile fever in horses within Europe. *PLOS Neglected Tropical Diseases*, **11** (9), e0005936. doi:[10.1371/journal.pntd.0005936](https://doi.org/10.1371/journal.pntd.0005936).

Criterion 4a: Natural transmission to humans has been proven, and human infection is associated with severe consequences.

(All) West Nile virus infection is a mosquito-borne zoonosis, and its transmission to human has been proven in different parts of the world.

REFERENCE

1. Montgomery R.R. & Murray K.O. (2015). – Risk factors for West Nile virus infection and disease in populations and individuals. *Expert Review of Anti-infective Therapy*, **13** (3), 317–325. doi:[10.1586/14787210.2015.1007043](https://doi.org/10.1586/14787210.2015.1007043).

Criterion 4b: The disease has been shown to have a significant impact on the health of domestic animals at the level of a country or a zone taking into account the occurrence and severity of the clinical signs, including direct production losses and mortality

(Lecollinet) Most domestic poultry do not develop clinical signs after WNV infection, except for geese and some duck species , in which a limited number of WNV epizootics have been reported. Horses are the most severely affected mammals and the most important WNV epizootics have been reported in horses; even though WNV vaccines have been developed for use in equids and have been shown to provide an excellent protection against WNV neuroinvasive disease development, they have been used heterogeneously in WNV-endemic countries.

(Van Geelen) West Nile virus transmission to animals has been shown to cause mild fever to severe, lethal neuroinvasive diseases in horses. Since its discovery, WNV has caused multiple human and animal disease outbreaks in all continents, except Antarctica. Infections are associated with economic losses, mainly due to the cost of treatment of infected patients, control programs, and loss of animals and animal product. There are effective vaccines available for horses, which have greatly contributed to decreased symptomatic cases since first introduction into the U.S.

(Savini) Approximately 20% of horses infected with WNV are symptomatic with clinical signs ranging from fever to severe neurological signs (90%) and death.

REFERENCES

- Bakonyi T., Ivanics É., Erdélyi K., Ursu K., Ferenczi E., Weissenböck H. & Nowotny N. – Lineage 1 and 2 Strains of Encephalitic West Nile Virus, Central Europe - Volume 12, Number 4—April 2006 - Emerging Infectious Diseases journal - CDC. doi:[10.3201/eid1204.051379](https://doi.org/10.3201/eid1204.051379).
- Chaintoutis S.C., Diakakis N., Papanastassopoulou M., Banos G. & Dovas C.I. (2015). – Evaluation of Cross-Protection of a Lineage 1 West Nile Virus Inactivated Vaccine against Natural Infections from a Virulent Lineage 2 Strain in Horses, under Field Conditions. *Clinical and Vaccine Immunology*, **22** (9), 1040–1049. doi:[10.1128/CVI.00302-15](https://doi.org/10.1128/CVI.00302-15).
- Cox S.L., Campbell G.D. & Nemeth N.M. (2015). – Outbreaks of West Nile virus in captive waterfowl in Ontario, Canada. *Avian Pathology*, **44** (2), 135–141. doi:[10.1080/03079457.2015.1011604](https://doi.org/10.1080/03079457.2015.1011604).

4. Lecollinet S., Pronost S., Coupier M., Beck C., Gonzalez G., Leblond A. & Tritz P. (2020). – Viral Equine Encephalitis, a Growing Threat to the Horse Population in Europe? *Viruses*, **12** (1), 23. doi:[10.3390/v12010023](https://doi.org/10.3390/v12010023).

5. Swayne D.E., Beck J.R., Smith C.S., Shieh W.J. & Zaki S.R. – Fatal Encephalitis and Myocarditis in Young Domestic Geese (*Anser anser domesticus*) Caused by West Nile Virus - Volume 7, Number 4—August 2001 - Emerging Infectious Diseases journal - CDC. doi:[10.3201/eid0704.017429](https://doi.org/10.3201/eid0704.017429).

Criterion 4c: The disease has been shown to, or scientific evidence indicates that it would, have a significant impact on the health of wildlife taking into account the occurrence and severity of the clinical signs, including direct economic losses and mortality, and any threat to the viability of a wildlife population

(Lecollinet) Some WNV strains, and more specifically WNV strains belonging to the Israeli-American cluster among lineage 1 WNV and Central European strains among lineage 2 WNV, have been shown to cause neurological disorders, associated with elevated lethality, in wild birds, in particular in Accipitriiforms and Passeriforms.

(Van Geelen) Wild birds, corvid species, such as american crows, raven and various jays, appear more susceptible to infection than some other bird species. It is also seen in various deer species and some wild rodents, such as squirrels.

(Savini) In a recent study, it has been shown that, after its introduction, WNV has had a devastating impact on native host populations in North America causing a persistent survival decline in 47% of the targeted species. Most of these species were not under threat of local or regional extinction being listed as Least Concern by the International Union for the Conservation of Nature (IUCN). Considering its impact on the populations of non-threatened species, the authors hypothesised a more severe implication on threatened species, characterised by much smaller distributions, because of WNV infection.

REFERENCES

1. Hernández-Triana L.M., Jeffries C.L., Mansfield K.L., Carnell G., Fooks A.R. & Johnson N. (2014). – Emergence of West Nile Virus Lineage 2 in Europe: A Review on the Introduction and Spread of a Mosquito-Borne Disease. *Frontiers in Public Health*, **2**, 271. doi:[10.3389/fpubh.2014.00271](https://doi.org/10.3389/fpubh.2014.00271).
2. LaDeau S.L., Kilpatrick A.M. & Marra P.P. (2007). – West Nile virus emergence and large-scale declines of North American bird populations. *Nature*, **447** (7145), 710–713. doi:[10.1038/nature05829](https://doi.org/10.1038/nature05829).
3. Swayne D.E., Beck J.R., Smith C.S., Shieh W.J. & Zaki S.R. – Fatal Encephalitis and Myocarditis in Young Domestic Geese (*Anser anser domesticus*) Caused by West Nile Virus - Volume 7, Number 4—August 2001 - Emerging Infectious Diseases journal - CDC. doi:[10.3201/eid0704.017429](https://doi.org/10.3201/eid0704.017429).
4. Ward M.P., Beveroth T.A., Lampman R., Raim A., Enstrom D. & Novak R. (2010). – Field-Based Estimates of Avian Mortality from West Nile Virus Infection. *Vector-Borne and Zoonotic Diseases*, **10** (9), 909–913. doi:[10.1089/vbz.2008.0198](https://doi.org/10.1089/vbz.2008.0198).

Secretariat Note:

The three experts concurred that West Nile fever meets criteria 1, 2, 3, 4a and 4c for listing in the Terrestrial Animal Health Code.

Furthermore, West Nile virus infection is a mosquito-borne zoonosis, and its transmission and spread are significantly influenced by weather conditions.

Original: English
June, 2021

**REPORT OF THE DEVELOPMENT OF THE CASE DEFINITION FOR INFECTION WITH
NIPAH VIRUS (NIPAH VIRUS ENCEPHALITIS)**

9 June to 23 June 2021

The case definition for infection with Nipah virus (Nipah virus encephalitis) was developed via videoconference and email exchange between 9 June and 23 June 2021, and is appended as Annex 1. Details of the experts and OIE staff who contributed to the drafting process are provided in Annex 2.

1. Background

‘Nipah virus encephalitis’ is listed in the OIE Terrestrial Animal Health Code (2021) (the Terrestrial Code) Chapter 1.3. ‘Diseases, infections and infestations listed by the OIE’ in Article 1.3.5. in the category of swine diseases and infections. There is no corresponding disease-specific chapter in the Terrestrial Code, but the OIE Manual of Diagnostic Tests and Vaccines for Terrestrial Animals 2021 (the Terrestrial Manual) contains Chapter 3.1.14. ‘Nipah and Hendra virus diseases (version adopted in May 2015), and Chapter 3.9.4. ‘Nipah virus encephalitis’, but this contains a single line of text referencing Chapter 3.1.14.

Nipah virus infection of pteropid bats is a non-OIE notifiable disease in wildlife that may be voluntarily reported to the OIE; a related technical disease card ‘Henipaviruses (Nipah virus)’ is available and was last updated in 2020.

2. Discussion

2.1. Disease name

The experts were concerned with the use of ‘Nipah virus encephalitis’ for the disease entity resulting from infection with Nipah virus in animals as the pathology is not limited to encephalitis but may include pneumonia and vasculitis [1]. They suggested that the OIE listing for this condition be updated to follow the pattern of ‘infection with [pathogenic agent]’.

2.2. Pathogenic agent

The experts agreed that the pathogenic agent for this condition is Nipah virus, a member of the genus Henipavirus in the family Paramyxoviridae.

2.3. Hosts

The experts noted that Nipah virus can infect a wide range of animal species (including humans), but suggested that, for the purpose of notification to the OIE, ‘Nipah virus encephalitis’ be defined as infection of horses, pigs, dogs, and cats with Nipah virus, as these are the species (other than pteropid bats) that to date have been naturally infected by the virus [2]. The experts considered that infections of pteropid bats with Nipah virus should continue to be voluntarily reported to the OIE as a non-OIE listed disease of wildlife. The experts discussed the circulation of Nipah in wildlife reservoirs (pteropid bats currently being the best understood) and the possibility that ecological changes could result in changes in the epidemiology of the virus. Should this occur, they recommended that consideration be given to expanding the host range for ‘infection with Nipah virus’ to include wildlife or domestic species that become relevant.

2.4. Diagnostic criteria

The experts considered that isolation of Nipah virus from a sample collected from an animal host would be sufficient to confirm a case of infection with Nipah virus. However, they recommended that if antigen or nucleic acid specific to Nipah virus is isolated from an animal, then either clinical signs or appropriate pathological lesions would need to be present, or the animal host is epidemiologically linked to a confirmed case, for the animal to be confirmed as a case. Finally, detection of antibodies specific to Nipah virus in an animal host can be considered a confirmed case if the animal host is epidemiologically linked to a confirmed case.

References

1. Spickler A.R. – Nipah Virus Infection. January 2016 (Last updated). Available at: <https://www.cfsph.iastate.edu/diseaseinfo/factsheets> (accessed on 13 August 2021).
 2. Ang B.S.P., Lim T.C.C. & Wang L. (2018). – Nipah Virus Infection. *J Clin Microbiol*, **56** (6). doi:10.1128/JCM.01875-17.
-

Appendix I

**REPORT OF THE DEVELOPMENT OF THE CASE DEFINITION FOR INFECTION
WITH NIPAH VIRUS (NIPAH VIRUS ENCEPHALITIS)
Virtual, 9 June to 23 June 2021**

Case definition

For the purpose of notification to the OIE, Nipah virus encephalitis is defined as an infection of horses, pigs, dogs, and cats (animal hosts) with Nipah virus.

The following defines the occurrence of infection with Nipah virus:

1. Nipah virus has been isolated from a sample collected from an animal host;

OR

2. antigen or nucleic acids specific to Nipah virus has been identified in samples from an animal host;

AND

- (i) the animal host is showing clinical signs consistent with infection with Nipah virus;

OR

- (ii) the animal host has pathological lesions consistent with infection with Nipah virus;

OR

- (iii) the animal host is epidemiologically linked to a confirmed case of Nipah virus encephalitis;

OR

3. antibodies specific to Nipah virus have been detected in samples from an animal host AND the animal host is epidemiologically linked to a confirmed case of Nipah virus encephalitis.

Standards for diagnostic tests are described in the OIE *Manual of Diagnostic Tests and Vaccines*.

Appendix II

**REPORT OF THE DEVELOPMENT OF THE CASE DEFINITION FOR INFECTION
WITH NIPAH VIRUS (NIPAH VIRUS ENCEPHALITIS)
Virtual, 9 June to 23 June 2021**

List of contributors

External experts

Kim Halpin
OIE Reference Laboratory for Hendra and Nipah Virus Diseases
Australian Centre for Disease Preparedness (CSIRO)
Australia

Hannah Bender
Australian Centre for Disease Preparedness (CSIRO)
Australia

Andrew Breed
Australian Government Department of Agriculture, Water and the Environment
Australia

Manabu Yamada
National Institute of Animal Health Tukuba Japan

Quaza Nizamuddin Bin Hassan Nizam
Former Delegate of Malaysia
Malaysia

OIE

Gregorio Torres
Head of Science Department

Jenny Hutchison
Deputy Head of Science Department

Antonino Caminiti
Chargé de mission
Science Department

Serin Shin
Scientific Coordinator
Science Department

Original: English
August, 2021

**REPORT OF THE DEVELOPMENT OF THE CASE DEFINITION FOR INFECTION
WITH BOVINE VIRAL DIARRHOEA VIRUSES (BOVINE VIRAL DIARRHOEA)**

27 May to 17 June 2021

The case definition for bovine viral diarrhoea was developed via videoconference and email exchange between 27 May and 17 June 2021, and is appended as Annex 1. Details of the experts and OIE staff who contributed to the drafting process are provided in Annex 2.

1. Background

‘Bovine viral diarrhoea’ is listed in the OIE *Terrestrial Animal Health Code* (2021) (the *Terrestrial Code*) Chapter 1.3. ‘Diseases, infections and infestations listed by the OIE’ in Article 1.3.2. in the category of cattle diseases and infections. There is no corresponding disease-specific chapter in the *Terrestrial Code*, but the OIE *Manual of Diagnostic Tests and Vaccines for Terrestrial Animals 2021* (the *Terrestrial Manual*) contains Chapter 3.4.7. ‘Bovine viral diarrhoea’ (version adopted May 2015).

2. Discussion

2.1. Disease name

The experts expressed their concern with the name ‘bovine viral diarrhoea’ as there is a broad disease spectrum including reproductive manifestations, respiratory disease, and immunosuppression; diarrhoea may not always be present. The experts suggested that the OIE listing for this condition be updated to follow the pattern of ‘infection with [pathogenic agent]’.

2.2. Pathogenic agent

The experts noted that virus species known as ‘bovine viral diarrhoea virus 1’, ‘bovine viral diarrhoea virus 2’, and ‘bovine viral diarrhoea virus 3’ are now named ‘pestivirus A’, ‘pestivirus B’, and ‘pestivirus H’ respectively [1]. Pestivirus 3 has also been termed ‘Hobi-like pestivirus’, or ‘atypical ruminant pestivirus’ [2]. Acknowledging that other closely related pathogenic pestiviruses are described separately in the OIE *Terrestrial Manual* (for example, ‘Border disease’ in Chapter 3.8.1, and ‘Classical swine fever’ in Chapter 3.9.3), the experts proposed that the pathogenic agent for ‘bovine viral diarrhoea’ be limited to bovine viral diarrhoea viruses (including bovine viral diarrhoea virus type 1 (pestivirus A) and type 2 (pestivirus B)), or Hobi-like pestiviruses (bovine viral diarrhoea virus type 3 (pestivirus H)). Hereafter, ‘BVDV’ is used to collectively refer to these viruses.

2.3. Hosts

BVDV are known to infect ruminants, pigs (suids), and camelids [2,3]. The experts agreed that wildlife do not play any significant role in the epidemiology of the infection. For the purposes of notification to the OIE, the experts recommended that the animal hosts for infection with BVDV be domestic and captive wild ruminants, camelids, and suids.

2.4. Diagnostic criteria

The experts expressed their opinion that as persistently infected animals do not usually have antibodies, and recovered or vaccinated seropositive animals are unlikely to be infectious, the presence of antibodies is not suitable for confirming a positive case of infection with BVDV; this is consistent with the *Terrestrial Manual*.

The experts discussed the epidemiology and clinical manifestation of the disease. It was noted that it is difficult to establish epidemiological links to confirmed cases, and that most of the new-born, persistently infected animals do not normally show clinical signs until a variable time later in life. The experts concluded that the confirmation of a case should rely on a positive laboratory test for the detection of virus, antigen, or nucleic acid.

3. References

1. Genus: *Pestivirus* - *Flaviviridae* - Positive-sense RNA Viruses - ICTV Available at: https://talk.ictvonline.org/ictv-reports/ictv_online_report/positive-sense-rna-viruses/w/flaviviridae/361/genus-pestivirus (accessed on 12 August 2021).
 2. Smith D.B., Meyers G., Bukh J., Gould E.A., Monath T., Scott Muerhoff A., Pletnev A., Rico-Hesse R., Stapleton J.T., Simmonds P. & Becher P. (2017). – Proposed revision to the taxonomy of the genus Pestivirus, family Flaviviridae. *Journal of General Virology*, **98** (8), 2106–2112. doi:10.1099/jgv.0.000873.
 3. Nelson D.D., Duprau J.L., Wolff P.L. & Evermann J.F. (2016). – Persistent Bovine Viral Diarrhea Virus Infection in Domestic and Wild Small Ruminants and Camelids Including the Mountain Goat (*Oreamnos americanus*). *Front. Microbiol.*, **6**. doi:10.3389/fmicb.2015.01415.
-

Appendix I

**REPORT OF THE DEVELOPMENT OF THE CASE DEFINITION FOR INFECTION
WITH BOVINE VIRAL DIARRHOEA VIRUSES (BOVINE VIRAL DIARRHOEA)
Virtual, 27 May to 17 August 2021**

Case definition

For the purposes of notification to the OIE, bovine viral diarrhoea is defined as an infection of domestic and captive wild ruminants, camelids, and suids (animal hosts) with bovine viral diarrhoea viruses (including bovine viral diarrhoea virus type 1 (pestivirus A) and type 2 (pestivirus B)), or Hobi-like pestiviruses (bovine viral diarrhoea virus type 3 (pestivirus H)). Hereafter, ‘BVDV’ is used to collectively refer to these viruses.

The following defines occurrence of infection with BVDV:

1. BVDV, excluding vaccine strains, has been isolated from samples from an animal host;

OR

2. Antigen or nucleic acids specific to BVDV has been identified in samples from an animal host.

Standards for diagnostic tests and vaccines are described in the OIE *Manual of Diagnostic Tests and Vaccines*.

Appendix II

**REPORT OF THE DEVELOPMENT OF THE CASE DEFINITION FOR INFECTION
WITH BOVINE VIRAL DIARRHOEA VIRUSES (BOVINE VIRAL DIARRHOEA)
Virtual, 27 May to 17 August 2021**

List of contributors

EXTERNAL EXPERTS

Peter Kirkland

OIE Reference Laboratory for Bovine Viral Diarrhoea
Elizabeth Macarthur Agriculture Institute (EMAI)
Australia

Martin Beer

OIE Reference Laboratory for Bovine Viral Diarrhoea
Friedrich-Loeffler-Institut (FLI)
Germany

Kerstin Wernike

OIE Reference Laboratory for Bovine Viral Diarrhoea
Friedrich-Loeffler-Institut (FLI)
Germany

Helen Crooke

OIE Reference Laboratory for Bovine Viral Diarrhoea
Animal and Plant Health Agency(APHA)
UK

Ed Dubovi

Animal Health Diagnostic Center at Cornell University
USA

OIE PARTICIPANTS

Gregorio Torres

Head of Science Department

Jenny Hutchison

Deputy Head of Science Department

Antonino Caminiti

Chargé de mission
Science Department

Serin Shin

Scientific Coordinator
Science Department

MEETING OF THE OIE SCIENTIFIC COMMISSION FOR ANIMAL DISEASES
Virtual, 13 to 24 September 2021

Work programme

Issue and priority order (1-3; 1 being highest priority)		September 2021
Update of OIE standards		
1	Glossary	<ul style="list-style-type: none"> • Not on agenda
2	Ch. 1.3. ‘Diseases, infections and infestations listed by the OIE’	<ul style="list-style-type: none"> • Not on agenda
1	Ch.8.8. Infection with foot and mouth disease virus	<ul style="list-style-type: none"> • Considered the work performed by the SCAD-TAHSC joint taskforce: implications of introducing vaccinated animals into an FMD-free country (or zone) where vaccination is not practised (not for direct slaughter); establishment of a protection zone in line with Article 4.4.6; management of incursion of African buffalo. • Revision to Article 8.8.1 proposed (see item under liaison with BSC)
1	Ch. 8.14. ‘Infection with rabies virus’	<ul style="list-style-type: none"> • Reviewed expert advice addressing Members’ comments on Article 8.14.6bis; endorsed opinion and text as proposed. • Reviewed draft Article 8.14.Y ‘Recommendations for an official control programme for wildlife-mediated rabies’; endorsed with minor revisions and forwarded to TAHSC.
1	Chapter 8.15. Infection with Rift Valley Fever virus	<ul style="list-style-type: none"> • Reviewed AHG report and the amendments proposed to Chapter 8.15.; endorsed the AHG report, forwarded amended chapter to TAHSC.
1	Chapter 8.X. <i>Infection with Trypanosoma evansi (surra)</i>	<ul style="list-style-type: none"> • AHG report and draft chapter reviewed; report endorsed but did not agree with all text proposed in chapter. Meat and embryos added to safe commodities, draft article for dogs and cats not included. Forwarded amended chapter to TAHSC.
2	Chapter 12.3. ‘Dourine’	<ul style="list-style-type: none"> • Noted that AHG did not finalise revisions to this chapter; recommended that work on this be paused until at least one round of comments received on Chapter 8.X.

1	Ch. 11.4. Bovine spongiform encephalopathy	<ul style="list-style-type: none"> Reviewed and endorsed the AHG report on the revision of BSE standards and the impact of this revision on the official status recognition.
1	Ch. 12.1. Infection with African horse sickness virus	<ul style="list-style-type: none"> Discussion continued from Feb 2021; agreed to use ‘area’ instead of ‘zone’ when referring to the serological surveillance requirement at the border with an infected country or zone. Forwarded SCAD opinion from this and Feb 2021 meetings to TAHSC.
3	Ch. 12.2. Contagious equine metritis	<ul style="list-style-type: none"> Considered a draft article proposed by experts and their opinions on ways of determining historical freedom or declaring freedom from CEM without testing all stallions. Forwarded SCAD opinion from this and Feb 2021 meetings to TAHSC.
3	Ch. 12.7. Equine piroplasmosis	<ul style="list-style-type: none"> Reviewed response from experts addressing Member comments on the chapter. SCAD opinion forwarded to TAHSC.
Official animal health status recognition		
1	Evaluation of Member dossiers	<ul style="list-style-type: none"> Not applicable
2	Expert missions to Members	<ul style="list-style-type: none"> The sanitary situation precluded in-person missions; until this becomes possible, animal health situations will be monitored through the annual reconfirmation campaign and (as needed) with virtual interviews.
2	Follow up of Members with official disease status or with suspended status	<ul style="list-style-type: none"> Turkey, FMD free zone where vaccination is practised: further information requested. United Kingdom, zone of England and Wales controlled BSE risk status: further information requested.
1	Review of annual reconfirmations	<ul style="list-style-type: none"> SCAD identified 49 annual reconfirmations for its February 2022 meeting.
1	Harmonisation of the requirements in the <i>Terrestrial Code</i> Chapters for recognition and maintenance of official disease-free status	<ul style="list-style-type: none"> Harmonisation work on Ch. 8.8. Infection with FMD virus and Ch. 12.1. Infection with AHS virus considered at Feb 2021, finalised at this meeting and forwarded to TAHSC. Based on the newly adopted Chapters 14.7. ‘Infection with PPR virus’ and 15.2. ‘Infection with CSF virus’ in May 2021, SCAD reviewed and endorsed the updated annual reconfirmation forms for CSF and PPR free status, and for an endorsed official control programme for PPR, as well as for dog-mediated rabies (after the first endorsement of control programmes in May 2021).

1	Impact of revisions of BSE standards on Members' BSE risk status	<ul style="list-style-type: none"> • SCAD discussed and agreed on a transition plan proposal with regard to the revision of Ch. 11.4. 'BSE' and official BSE risk status related to: impact of the revised BSE provisions on already recognised BSE risk status; 'starting date' when the risk of the BSE agents being recycled within the cattle population has been demonstrated to be negligible; level of surveillance required to maintain the BSE risk status. SCAD proposed that AHG(s) be convened to progress the associated work.
----------	--	--

Disease control issues		
2	Advise on global strategies and initiatives (FMD, PPR, rabies, ASF)	<ul style="list-style-type: none"> • Updated on the progress made.
1	Consider non-disease-Status and non-standard-setting <i>ad hoc</i> Groups reports falling into the SCAD remit	<ul style="list-style-type: none"> • Updated on the activities of the <i>Ad hoc</i> Group on COVID-19 and Safe Trade in Animals and Animal Products since Feb 2021.
1	Assess recent developments in the practical problems of control and eradication of infectious diseases and the impact of these developments	<ul style="list-style-type: none"> • SCAD was advised of the changing epidemiological situation of rabbit haemorrhagic disease. It recommended that TAHSC add revision of the chapter to its work programme, noting the need to include provisions for recovery of freedom, and a case definition, which it added to the next tranche of case definitions for development. • SCAD took note of a recent description of the characterisation of lumpy skin disease virus wild-, vaccine-, and goatpox-like sequences in the vaccine vial and in samples taken from animals vaccinated with a commercial lumpy skin disease vaccine. • SCAD was updated about the current situation of African Swine fever in the Dominican Republic and Haiti.
1	Implementation of the listing SOP	<ul style="list-style-type: none"> • Consideration of request and determination of way forward (SOP 3.1-2): Progression of (de)listing of <i>A. woodii</i> and <i>Tropilaelaps</i> spp., and listing of strangles all directed toward assessment by subject-matter experts via electronic consultation (as per SOP 3.2) • Consideration of expert consultation report and BSC opinion (SOP 3.2-8): for (de)listing of paratuberculosis, SCAD requested additional clarification as per SOP 3.2-8 ii; for (de)listing of West Nile fever, SCAD agreed with the experts that it met all listing criteria and so should be maintained on the OIE list.

1	Development of case definitions	<ul style="list-style-type: none"> Assessed the progress of the work on case definitions and advised on diseases to be included in the next tranche: Q fever, turkey rhinotracheitis, camelpox, Nairobi sheep disease, salmonellosis (<i>S. abortusovis</i>), New World Screwworm, Old World Screwworm, and rabbit haemorrhagic disease. Reviewed and revised the case definitions proposed in the expert reports (which they endorsed) for bovine viral diarrhoea, and Nipah virus encephalitis.
	Insects	<ul style="list-style-type: none"> SCAD was informed about the growing international trade in insects and lack of international standards

Liaison with other Specialist Commissions		
1	Terrestrial Animal Health Commission	<ul style="list-style-type: none"> Covered under topics for FMD (task force) and BSE.
1	Biological Standards Commission	<ul style="list-style-type: none"> Both BSC and SCAD reviewed advice from experts concerning inconsistencies in the case definition for FMD between <i>Terrestrial Code</i> and <i>Manual</i>. SCAD proposed an amendment to Article 8.8.1 to specify that virus should be characterised as well as isolated, and recommended that BSC consider this principle in future Manual.
Working Groups		
2	Antimicrobial resistance Working Group	<ul style="list-style-type: none"> The Commission was updated on the Working Group recent activities.
2	Wildlife Working Group	<ul style="list-style-type: none"> The Commission was updated on the Working Group recent activities, including the proposal that OIE develop a chapter on surveillance of wildlife diseases.
Other activities that could affect SCAD work programme		
1	Evaluation of applications for OIE Collaborating Centre status	<ul style="list-style-type: none"> None at this meeting.
3	Update on the main conclusion/recommendations of meetings relevant for the work of the Commission	<ul style="list-style-type: none"> The Commission was updated on the outcomes of the most relevant meetings organised since February 2021, including for African swine fever and lumpy skin disease.
3	Updates provided for SCAD information	<p>SCAD was informed about:</p> <ul style="list-style-type: none"> OFFLU SIRCAH STAR-IDAZ International Research Consortium OIE Collaborating Centre for Good Beekeeping Management Practices and Biosecurity Measures in the Apiculture Sector Global Burden of Animal Diseases programme (GBADS) and the OIE Collaborating Centre for the Economics of Animal Health.
	Any other business	<ul style="list-style-type: none"> None at this meeting.

© World Organisation for Animal Health (OIE), 2021

This document has been prepared by specialists convened by the OIE. Pending adoption by the World Assembly of Delegates of the OIE, the views expressed herein can only be construed as those of these specialists.

All OIE publications are protected by international copyright law. Extracts may be copied, reproduced, translated, adapted or published in journals, documents, books, electronic media and any other medium destined for the public, for information, educational or commercial purposes, provided prior written permission has been granted by the OIE.

The designations and denominations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the OIE concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers and boundaries.

The views expressed in signed articles are solely the responsibility of the authors. The mention of specific companies or products of manufacturers, whether or not these have been patented, does not imply that these have been endorsed or recommended by the OIE in preference to others of a similar nature that are not mentioned.