WOAH Reference Laboratory Reports Activities 2022

Activities in 2022

This report has been submitted : 4 mai 2023 16:45

Laboratory Information

Name of disease (or topic) for which you are a designated WOAH Reference Laboratory:	Infectious bovine rhinotracheitis/infectious pustular vulvovaginitis
Address of laboratory:	Animal and Plant Health Agency, Woodham lane, Addlestone, Surrey, KT15 3NB, United Kingdom
Tel.:	+442080269394
E-mail address:	akbar.dastjerdi@apha.gov.uk
Website:	apha.gov.uk
Name (including Title) of Head of Laboratory (Responsible Official):	David Holdsworth, CEO
Name (including Title and Position) of WOAH Reference Expert:	Dr. Akbar DASTJERDI, Head of Mammalian Virus Investigation Unit
Which of the following defines your laboratory? Check all that apply:	Governmental

TOR1: DIAGNOSTIC METHODS

1. Did your laboratory perform diagnostic tests for the specified disease/topic for purposes such as disease diagnosis, screening of animals for export, surveillance, etc.? (Not for quality control, proficiency testing or staff training)

Yes

Diagnostic Test	Indicated in WOAH Manual (Yes/No)	Total number of test performed last year	
Indirect diagnostic tests		Nationally	Internationally
cELISA	YES	9818	0
iELISA	YES	1930	0

gE ELISA	YES	1055	0
Milk iELISA	YES	132	0
SNT	YES	274	0
Direct diagnostic tests		Nationally	Internationally
TRIplex BoHV-1/BRSV/PIV-3 PCR	Yes	51	0

TOR2: REFERENCE MATERIAL

2. Did your laboratory produce or supply imported standard reference reagents officially recognised by WOAH?

No

3. Did your laboratory supply standard reference reagents (nonWOAH-approved) and/or other diagnostic reagents to WOAH Members?

No

4. Did your laboratory produce vaccines?

No

5. Did your laboratory supply vaccines to WOAH Members?

No

TOR3: NEW PROCEDURES

6. Did your laboratory develop new diagnostic methods for the designated pathogen or disease?

Yes

7. Did your laboratory validate diagnostic methods according to WOAH Standards for the designated pathogen or disease?

Yes

NAME OF THE NEW TEST OR DIAGNOSTIC METHOD DEVELOPED	DESCRIPTION AND REFERENCES (PUBLICATION, WEBSITE, ETC.)
TRIplex BoHV-1/BRSV/PIV-3 PCR	This test, originally described by Thonur et al. (2012) was optimised and validated at APHA-Weybridge. The test is now offered for bovine respiratory disease investigations to UK and international customers.

8. Did your laboratory develop new vaccines for the designated pathogen or disease?

No

9. Did your laboratory validate vaccines according to WOAH Standards for the designated pathogen or disease?

No

TOR4: DIAGNOSTIC TESTING FACILITIES

10. Did your laboratory carry out diagnostic testing for other WOAH Members?

No

11. Did your laboratory provide expert advice in technical consultancies on the request of an WOAH Member?

Yes

NAME OF THE WOAH MEMBER COUNTRY RECEIVING A TECHNICAL CONSULTANCY	PURPOSE	HOW THE ADVICE WAS PROVIDED

CANADA	To validate an in-house iELISA test for milk samples.	The advice was provided through email and was focused on milk sample preparation for ELISA and ELISA's controls.

TOR5: COLLABORATIVE SCIENTIFIC AND TECHNICAL STUDIES

12. Did your laboratory participate in international scientific studies in collaboration with WOAH Members other than the own?

Yes

Title of the study	Duration	PURPOSE OF THE STUDY	PARTNERS (INSTITUTIONS)	WOAH MEMBER COUNTRIES INVOLVED OTHER THAN YOUR COUNTRY
Methodological advancements on inter-laboratory diagnostic test evaluation	15 months	To evolve the concept of proficiency testing into an inter-laboratory diagnostic test evaluation, by developing specialised Bayesian latent class models to simultaneously estimate the accuracy of diagnostic tests used in laboratories operating in different countries.	SVA - Sweden WBVR - Netherlands ANSES - France UCPH - Denmark	SWEDEN

TOR6: EPIZOOLOGICAL DATA

14. Did your Laboratory collect epidemiological data relevant to international disease control?

Yes

IF THE ANSWER IS YES, PLEASE PROVIDE DETAILS OF THE DATA COLLECTED:
APHA collects information on BoHV-1 positive submissions for prevalence studies and international trade purposes.

15. Did your laboratory disseminate epidemiological data that had been processed and analysed?

No

16. What method of dissemination of information is most often used by your laboratory? (Indicate in the appropriate box the number by category and list the details in the box)

a) Articles published in peer-reviewed journals:

b) International conferences:

c) National conferences:

d) Other (Provide website address or link to appropriate information):

TOR7: SCIENTIFIC AND TECHNICAL TRAINING

17. Did your laboratory provide scientific and technical training to laboratory personnel from other WOAH Members?

No

TOR8: QUALITY ASSURANCE

18. Does your laboratory have a Quality Management System?

Yes

Quality management system adopted	Certificate scan (PDF, JPG, PNG format)	
ISO/IEC 17025:2017	PDF	ISO17025 Certificate_apha.pdf

19. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
iELISA, cELLISA, SNT	United Kingdom Accreditation Service (UKAS)

20. Does your laboratory maintain a "biorisk management system" for the pathogen and the disease concerned?

Yes

The bio-risk management system at APHA is implemented through validated Standard Operating Procedures (SOPs), Risk Assessment documents, competent staff and following standard microbiological practices such as use of microbiological safety cabinets and safe disposal of infectious waste.

TOR9: SCIENTIFIC MEETINGS

21. Did your laboratory organise scientific meetings related to the pathogen in question on behalf of WOAH?

No

22. Did your laboratory participate in scientific meetings related to the pathogen in question on behalf of WOAH?

Yes

Title of event	Date (mm/yy)	Location	Role (speaker, presenting poster, short	Title of the work

			communications)	presented
CoVetLab project (https://www.covetlab.org/)	2022-12-06	Lelystad, Netherlands	Speaker	Epidemiology of IBR in the UK

TOR10: NETWORK WITH WOAH REFERENCE LABORATORIES

23. Did your laboratory exchange information with other WOAH Reference Laboratories designated for the same pathogen or disease?

No

24. Are you a member of a network of WOAH Reference Laboratories designated for the same pathogen?

No

25. Did you organise or participate in inter-laboratory proficiency tests with WOAH Reference Laboratories designated for the same pathogen?

No

26. Did your laboratory collaborate with other WOAH Reference Laboratories for the same disease on scientific research projects for the diagnosis or control of the pathogen of interest?

No

TOR11: OTHER INTERLABORATORY PROFICIENCY TESTING

27. Did your laboratory organise or participate in inter-laboratory proficiency tests with laboratories other than WOAH Reference Laboratories for the same pathogen?

Yes

Purpose for inter-laboratory test comparisons1	Role of your reference laboratory (organizer/participant)	No. participating laboratories	Region(s) of participating WOAH Member Countries
Assessing performance of IBR ELISAs for the detection of antibody to BoHV-1 in serum samples.	Organiser	30	Africa America Asia and Pacific Europe
Assessing performance of IBR ELISA for the detection of antibody to BoHV-1 in bulk milk	Organiser	19	America Europe

TOR12: EXPERT CONSULTANTS

28. Did your laboratory place expert consultants at the disposal of WOAH?

No

29. Additional comments regarding your report:

Yes

As mentioned above, APHA conducts a Proficiency Testing (PT) Scheme for IBR serology on a quarterly basis with participants from several European countries, Americas and Asia Pacific. At APHA, I analyse each PT outcome for approval and provide comments on unexpected results to the relevant participants where required. However, there hasn't been any major issue with the IBR tests (ELISAs and

SNT) carried out by any of the participating laboratories which would lead to further action, such as additional training.

As the commission is aware, APHA and National Dairy Development Board (NDDB), India were to embark on a twinning project, but unfortunately due to SARS-CoV-2 outbreak and subsequent restrictions, progress with this project came to a halt. In July 2021, APHA and NDDB had a virtual meeting to restart the project, however, we then received a letter dated 7 September 2021, from WOAH that this project has been removed from the list of projects on hold. Looking forward, I am pleased to report that 2023 is looking to be a productive year for the RL: This twinning project was re-written and submitted to WOAH, and has now been approved. The relevant contract has just been signed by both parties and the kick off meeting will be on the 6th February 2023.

In addition, as part of a collaboration among five European National RLs (NRLs) for IBR, a CoVetLab (https://www.covetlab.org/c5/) project proposal entitled "Methodological advancements on inter laboratory diagnostic test evaluation" has been approved and funded by the respective institutes (APHA, SVA, ANSES, DK and WBVR). The project aims to evolve the concept of proficiency testing into an inter laboratory diagnostic test evaluation, by developing specialised Bayesian Latent Class Models (BLCM) to simultaneously estimate the accuracy of diagnostic tests used in NRLs operating in different countries. I attended the project's kick-off meeting on 6/7 December in WBVR in Lelystad, Netherlands to provide a background to the disease situation in the UK and discuss sampling protocol and timelines. The project has started in January for a duration of 15 months. The expected outcome of this project is to harmonise our diagnostic assays within Europe, a concept which could be extended to other member states.