OIE Reference Laboratory Reports Activities

Activities in 2020

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Name of disease (or topic) for which you are a designated OIE Reference Laboratory:	Foot and mouth disease
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Website:	www.bvi.co.bw
Name (including Title) of Head of Laboratory (Responsible Official):	Dr. Joseph Hyera
Name (including Title and Position) of OIE Reference Expert:	Dr. Mokganedi Mokopasetso Acting General Manager-BVI
Which of the following defines your laboratory? Check all that apply:	Governmental Research

ToR 1: To use, promote and disseminate diagnostic methods validated according to OIE Standards

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 OIE Manual (Yes/No)	Total number of test performed last year	
Indirect diagnostic tests		Nationally	Internationally
Non Structural Protein ELISA	Yes	1277	215
Liquid Phase Blocking ELISA	Yes	0	60
2dmVNT	Yes	1	1
VNT	Yes	27	0
Direct diagnostic tests		Nationally	Internationally
FMD Virus Isolation	Yes	14	16
Antigen ELISA typing	Yes	0	8
RT-PCR & Sequencing	Yes	14	16

ToR 2: To develop reference material in accordance with OIE requirements, and implement and promote the application of OIE Standards.
To store and distribute to national laboratories biological reference products and any other reagents used in the diagnosis and control of the designated pathogens or disease.

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

No

3. Did your laboratory supply standard reference reagents (non OIE-approved) and/or other diagnostic reagents to OIE Member Countries?

No

4. Did your laboratory produce vaccines?

No

5. Did your laboratory supply vaccines to OIE Member Countries?

No

ToR 3: To develop, standardise and validate, according to OIE Standards, new procedures for diagnosis and control of the designated pathogens or diseases

6. Did your laboratory develop new diagnostic methods validated according to OIE Standards for the designated pathogen or disease?

Yes

7. Did your laboratory develop new vaccines according to OIE Standards for the designated pathogen or disease?

No

Name of the new test or diagnostic method or vaccine developed	Description and References (Publication, website, etc.)
Development of two rapid lateral flow test strips for detection of foot-and-mouth disease virus SAT 1 and SAT 3	https://doi.org/10.1016/j.jviromet.2020.113967

ToR 4: To provide diagnostic testing facilities, and, where appropriate, scientific and technical advice on disease control measures to OIE Member Countries

8. Did your laboratory carry out diagnostic testing for other OIE Member Countries?

Yes

Name of OIE Member Country seeking assistance	Date (month)	No. samples received for provision of diagnostic support	No. samples received for provision of confirmatory diagnoses
BOTSWANA	January	0	68 sera
NAMIBIA	January	6 epithelial tissues	8 sera
BOTSWANA	February	1 epithelial tissue	32 sera
BOTSWANA	May	4 epithelial tissues	32 sera
BOTSWANA	June	0	16 sera
BOTSWANA	August	0	40 sera
MALAWI	September	2 epithelial tissues	4 sera
BOTSWANA	September	0	39 sera
BOTSWANA	October	9 epithelial tissues	59 sera
NAMIBIA	October	2 epithelial tissues	0
ETHIOPIA	October	0	60 sera
BOTSWANA	November	0	1006 sera
LESOTHO	November	0	200 sera

9. Did your laboratory provide expert advice in technical consultancies on the request of an OIE Member Country?

No

ToR 5: To carry out and/or coordinate scientific and technical studies in collaboration with other laboratories, centres or organisations

10. Did your laboratory participate in international scientific studies in collaboration with OIE Member Countries other than the own?

Yes

Title of the study	Duration	Purpose of the study	Partners (Institutions)	OIE Member Countries involved other than your country
Inter-laboratory testing	12 months	Method Validation	CANADA	CANADA
Inter-laboratory testing	12 months	Method Validation	SCIENSANO	BELGIUM

ToR 6: To collect, process, analyse, publish and disseminate epizootiological data relevant to the designated pathogens or diseases

11. Did your Laboratory collect epizootiological data relevant to international disease control?

Yes

If the answer is yes, please provide details of the data collected:
FMD situation in Botswana, Malawi, Zambia, and Namibia was discussed during the OIE Network meeting.

12. Did your laboratory disseminate epizootiological data that had been processed and analysed?

Yes

If the answer is yes, please provide details of the data collected:
Outbreak samples were sequenced and genotyping reports shared with the submitting country.

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

a) Articles published in peer-reviewed journals: 0

b) International conferences: 1
The 15th Annual Meeting of the OIE/FAO FMD Reference Laboratory Network
2nd and 3rd December 2020
Meeting attendees (virtual format):

c) National conferences: 0

d) Other:
(Provide website address or link to appropriate information) 0

ToR 7: To provide scientific and technical training for personnel from OIE Member Countries
To recommend the prescribed and alternative tests or vaccines as OIE Standards

14. Did your laboratory provide scientific and technical training to laboratory personnel from other OIE Member Countries?

Yes

a) Technical visits: 1
b) Seminars: 0

c) Hands-on training courses: 0
d) Internships (>1 month): 0

Type of technical training provided (a, b, c or d)	Country of origin of the expert(s) provided with training	No. participants from the corresponding country
a	Botswana	1

ToR 8: To maintain a system of quality assurance, biosafety and biosecurity relevant for the pathogen and the disease concerned

15. Does your laboratory have a Quality Management System?

Yes

Quality management system adopted	Certificate scan (PDF, JPG, PNG format)
ISO 17025	Certificate of Accreditation - Schecule.pdf
ISO17025	Certificate of Accreditation - Schecule.pdf

16. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
Virus isolation (VI) in cell culture and detection by antigen ELISA	SADCAS
Virus isolation in cell culture and detection by RT-PCR & sequencing	SADCAS
Virus genome detection (VGD) by RT-PCR & sequencing	SADCAS

17. Does your laboratory maintain a “biorisk management system” for the pathogen and the disease concerned?

Yes

(See Manual of Diagnostic Tests and Vaccines for Terrestrial Animals, Chapter 1.1.4)

ToR 9: To organise and participate in scientific meetings on behalf of the OIE

18. Did your laboratory organise scientific meetings on behalf of the OIE?

No

19. Did your laboratory participate in scientific meetings on behalf of the OIE?

No

ToR 10: To establish and maintain a network with other OIE Reference Laboratories designated for the same pathogen or disease and organise regular inter-laboratory proficiency testing to ensure comparability of results

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

Yes

21. Was your laboratory involved in maintaining a network with OIE Reference Laboratories designated for the same pathogen or disease by organising or participating in proficiency tests?

Yes

Purpose of the proficiency tests: [1]	Role of your Reference Laboratory (organiser/ participant)	No. participants	Participating OIE Ref. Labs/ organising OIE Ref. Lab.
Validation of diagnostic protocols	Participant	70	BVI-RRLSSA FMD/WRL-FMD

[1] *validation of a diagnostic protocol: specify the test; quality control of vaccines: specify the vaccine type, etc.*

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

No

ToR 11: To organise inter-laboratory proficiency testing with laboratories other than OIE Reference Laboratories for the same pathogens and diseases to ensure equivalence of results

23. Did your laboratory organise or participate in inter-laboratory proficiency tests with laboratories other than OIE Reference Laboratories for the same disease?

No

Note: See Interlaboratory test comparisons in: Laboratory Proficiency Testing at: http://www.oie.int/en/our-scientific-expertise/reference-laboratories/proficiency-testing see point 1.3

ToR 12: To place expert consultants at the disposal of the OIE

24. Did your laboratory place expert consultants at the disposal of the OIE?

No

25. Additional comments regarding your report:

COVID-19 restrictions made it difficult for activities that required travel to happen and even the number of samples received during the period decreased.