WOAH Reference Laboratory Reports Activities 2022

Activities in 2022

This report has been submitted : 3 avril 2023 04:50

Laboratory Information

Name of disease (or topic) for which you are a designated WOAH Reference Laboratory:	Sheep pox and goat pox
Address of laboratory:	No. 100 Old Soutpan Road (M35), Onderstepoort
Tel.:	(+2712) 529 - 9233/9117/9465
E-mail address:	LubisiA@arc.agric.za
Website:	https://www.arc.agric.za
Name (including Title) of Head of Laboratory (Responsible Official):	Dr. Misheck Mulumba
Name (including Title and Position) of WOAH Reference Expert:	Dr. Baratang Alison Lubisi
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)

No

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?

Not applicable

TOR3: NEW PROCEDURES

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

No

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

No

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?

No

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
The Development of a Real-Time PCR Assay for Specific Detection of the NISKHI Sheep Pox Vaccine Virus Strain DNA	3 months	Development of a Real-Time PCR Assay for Specific Detection of the NISKHI Sheep Pox Vaccine Virus Strain DNA	Federal Center for Animal Health, Vladimir; Department of Food Safety, Veterinary Specialized Institute Kraljevo, Zicka , Kraljevo	RUSSIA SERBIA

TOR6: EPIZOOLOGICAL DATA

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

No

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:

1
Sprygin, A., Mazloum, A., Van Schalkwyk, A., Krotova, A., Shalina, K., Dmitric, M., Byadovskaya, O., Prokhvatilova, L., & Chvala, A. (2022). The Development of a Real-Time PCR Assay for Specific Detection of the NISKHI Sheep Pox Vaccine Virus Strain DNA. Applied Microbiology, 2(4), 956-964; https://doi.org/10.3390/applmicrobiol2040073

b) International conferences:

0

c) National conferences:

0

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

0

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)	
ISO17025	PDF	V0001-06-2022 signed.pdf

19. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
Not accredited for any sheep pox and goat pox	

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

Yes

The ARC-OVR has a Biosafety and Biosecurity Committee which manages all biological risks on, or which may potentially affect operations on campus. Personnel also attend refresher courses on an annual basis. Dr. Lubisi attended ABSA International’s 2nd

Biosecurity Hybrid Symposium which was held between 01 and 08 May 2022, at the Renaissance Minneapolis Hotel, The Depot, 225 Third Avenue South, Minneapolis, MN 55401, United States of America. Whilst there, she attended a development course on the 3rd of May 2022 titled: Biosecurity for uncertain situations: Challenges and solutions. The course used case studies and guided exercises to assess security risks and describe challenges, lessons learned and opportunities for protecting biological materials, especially in situations where information, resources and support are scarce.

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?

No

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?

No

TOR12: EXPERT CONSULTANTS

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

No

29. Additional comments regarding your report:

South Africa is free of sheep pox and goat pox, and the laboratory is experiencing challenges with receiving samples from other countries. However, the laboratory is taking the following measures to improve and increase sheep and goat pox related activities (sample submission, diagnostics, research collaborations, proficiency test scheme (PTS)/interlaboratory tests (ILT), and training):

1. Funding has been sourced and secured to implement PTS/ILT and the process of contacting member countries to invite them to participate. Sheep and goat pox will be among the priority diseases.

2. A revised twinning project proposal with China Animal Health and Epidemiology Centre (CAHEC) is under development. China is endemic for sheeppox and goatpox, and the twinning will be used as an opportunity to exchange information and expertise related to

these diseases as well.
3. The ARC-OVR researchers collaborated with colleagues in Russia (Federal Center for Animal Health, Vladimir), Serbia (Department of Food Safety, Veterinary Specialized Institute Kraljevo, Zicka , Kraljevo) and South Africa (Department of Biotechnology, University of the Western Cape) on the development of a real time PCR assay for the detection of a sheeppox vaccine strain:
Sprygin, A., Mazloum, A., Van Schalkwyk, A., Krotova, A., Shalina, K., Dmitric, M., Byadovskaya, O., Prokhvatilova, L., & Chvala, A. (2022). The Development of a Real-Time PCR Assay for Specific Detection of the NISKHI Sheep Pox Vaccine Virus Strain DNA. Applied Microbiology, 2(4), 956-964; https://doi.org/10.3390/applmicrobiol2040073

Endeavours will be made to increase the number of collaborative research projects, to include WOAH Reference Laboratories.

4. Two researchers at ARC-OVR are dedicated to continually adapting and improving the molecular diagnostic tests for Lumpy Skin Disease (LSD), which are applicable to sheeppox and goatpox.