World Organisation for Animal Health

Barend Johannes Mans - - SOUTH_AFRICA

WOAH Reference Laboratory Reports Activities 2025

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LABORATORY INFORMATION

***Name of disease (or topic) for which you are a designated WOAH Reference Laboratory:**	Theileriosis
***Address of laboratory:**	Agricultural Research Council - Onderstepoort Veterinary Research, 100 Soutpan Road, Onderstepoort, 0110, South Africa
***Tel:**	+27125299200
***E-mail address:**	mansb@arc.agric.za
Website:	https://www.arc.agric.za/arc-ovi/Pages/Parasites,-vectors-and--vector-bourne-diseases.aspx
***Name (including Title) of Head of Laboratory (Responsible Official):**	Dr. Alison Lubisi
***Name (including Title and Position) of WOAH Reference Expert:**	Dr. Ben J. Mans
***Which of the following defines your laboratory? Check all that apply:**	Governmental Research agency

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
Theileria parva IFAT	Yes	4147	0
Theileria equi IFAT	Yes	97	0
Direct diagnostic tests		Nationally	Internationally
Theileria parva PCR	Yes	4152	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?

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?

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

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?

No

13. In exercising your activities, have you identified any regulatory research needs* relevant for WOAH?

No

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:

0

b) International conferences:

c) National conferences:

2

Mbizeni, S., Mans, B., Mukaratirwa, S., Latif A. 2025. Spatial and temporal risk analysis of Corridor disease (buffalo-adapted Theileria parva infections) in cattle population of northern KwaZulu-Natal, South Africa (2005 to 2024). Southern African Society for Veterinary Epidemiology and Preventive Medicine, 22 Annual Congress, ANEW Resort, White River, Mpumalanga. 20-22 August 2025.

Mbizeni, S., Mans, B., Mukaratirwa, S., Latif A. 2025. The carrier state, pathogenicity and parasitological features of Theileria parva stocks prevalent in cattle population of southern Africa: A systematic review and meta-analysis. Southern African Society for Veterinary Epidemiology and Preventive Medicine, 22 Annual Congress, ANEW Resort, White River, Mpumalanga. 20-22 August 2025.

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	SANAS Cetrificate and scope 2025 V0017.pdf

19. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
Theileria parva IFAT cattle serum Theileria equi IFAT horse serum Theileria equi IFAT Theileria parva Hybrid II real-time PCR test for Buffalo and Cattle whole blood	South African National Accreditation System (SANAS)

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

Yes

Theileriosis is not zoonotic and only transmissible by ticks infected with sporozoites. Risk of direct infection from biological material is therefore minimal. Irrespectively, diagnostic samples are treated as potentially infectious and inactivated and destroyed using oncampus incineration. When using ticks for tick-transmission studies, all work is performed within a quarantined stable area approved by the Department of Agriculture.

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?

Not applicable (only WOAH Reference Laboratory designated for the disease

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

Not applicable (only WOAH Reference Laboratory designated for the disease

25. Did you organise or participate in inter-laboratory proficiency tests with WOAH Reference Laboratories designated for the same pathogen during the past 2 years?

Not applicable (Only WOAH Reference Laboratory designated for the disease)

Only Reference Laboratory for Theileria parva.

Performed inter-laboratory proficiency testing with VETQAS for Equine piroplasmosis.

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?

Not applicable (only WOAH Reference Laboratory designated for the disease

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 during the past 2 years?

Yes

Purpose for inter-	**Role of your reference**			

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laboratory test comparisons1	laboratory (organizer/participant)	No. participating laboratories	Name of the test	WOAH Member Countries
Proficiency testing	Participant	10	Theileria (Babesia) equi IFAT/CFT/ELISA	AUSTRALIA, FRANCE, HONG KONG, IRELAND, ITALY, PORTUGAL, SOUTH AFRICA, SPAIN, UNITED ARAB EMIRATES, UNITED KINGDOM, UNITED STATES OF AMERICA,

TOR12: EXPERT CONSULTANTS

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

Yes

Kind of consultancy	Location	Subject (facultative)
Review of WOAH standards and manual	Remote	Theileriosis chapters

29. Additional comments regarding your report:

Yes

We are currently the only Reference Laboratory for Theileriosis. Once the Reference Laboratory for Italy has been confirmed as Reference Laboratory, the laboratory will be engaged to investigate areas of collaboration and whether it will be possible to set up proficiency testing schemes for Theileriosis.