World Organisation for Animal Health

Nick Van Reet - - BELGIUM

WOAH Reference Laboratory Reports Activities 2025

This report has been submitted: 10 février 2026 21:53

LABORATORY INFORMATION

***Name of disease (or topic) for which you are a designated WOAH Reference Laboratory:**	Surra (Trypanosoma evansi)
***Address of laboratory:**	Nationalestraat 155
***Tel:**	+32(0)33455575
***E-mail address:**	nvanreet@itg.be
Website:	www.itg.be
***Name (including Title) of Head of Laboratory (Responsible Official):**	Dr. Vet. Rombouts Caroline
***Name (including Title and Position) of WOAH Reference Expert:**	Dr. Van Reet Nick
***Which of the following defines your laboratory? Check all that apply:**	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
CATT / T.evansi	Yes	6	397
ELISA / RoTat 1.2	Yes	0	9
ELISA / water soluble extract	Yes	0	9
Immune trypanolysis	Yes	0	3
Direct diagnostic tests		Nationally	Internationally
Blood smear Giemsa	Yes	5	368

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?

Yes

Type of reagent available	Related diagnostic test	Produced/ provide	Amount supplied nationally (ml, mg)	Amount supplied internationally (ml, mg)	No. of recipient WOAH Member Countries	Country of recipients
						ARGENTINA, AUSTRALIA, BRAZIL, CHILE, CHINA (PEOPLE'S REP. OF),

CATT / T.evansi	Surra antibody detection	produced / 110.852 tests	0	supplied / 74.000 tests or 296 test kits (250 reactions)	25	CZECH REPUBLIC, EGYPT, FRANCE, GERMANY, IRELAND, KENYA, KOREA (REP. OF), MAURITANIA, MOROCCO, PAKISTAN, PHILIPPINES, PORTUGAL, SAUDI ARABIA, SPAIN, THAILAND, THE NETHERLANDS, TUNISIA, TURKEY, UNITED ARAB EMIRATES, UNITED STATES OF AMERICA,

4. Did your laboratory produce vaccines?

Not applicable

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?

Yes

Name of the new test or diagnostic method developed	Description and References (Publication, website, etc.)
Trypanozoon-RT-qPCR (continued from 2024)	Description: A multiplexed RT-qPCR method that targets the Trypanosoma brucei repeat (TBR) sequence alongside detection of the 18S rRNA, enhancing specificity and sensitivity for Trypanosoma species identification. References: The method and its validation are described in a publication currently in preparation. Further details will be available upon its release.
ELISA / whole soluble antigen (continued from 2024)	Description: This ELISA method detects antibodies against whole soluble antigens of Trypanosoma. Recent modifications include the integration of commercial buffers (apDia) and a novel substrate, improving the assay's performance over the previously used ABTS substrate. References: Additional information on the methodology and validation will be provided in upcoming publications and detailed documentation on our website
ELISA / RoTat 1.2 VSG (continued from 2024)	Description: An ELISA method specifically detecting antibodies against the T. evansi RoTat 1.2 VSG, used to differentiate infections by surra from dourine and nagana. References: Modifications and validations of this method, including the use of commercial buffers (apDia) and a novel substrate, will be detailed in forthcoming publications and on our website.

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?

Yes

Name of WOAH Member Country seeking assistance	Date	Which diagnostic test used	No. samples received for provision of diagnostic support	No. samples received for provision of confirmatory diagnoses
BAHRAIN	2025-01-09	CATT / T.evansi, Blood Smear Giemsa	3	0

Nick Van Reet - - BELGIUM

BAHRAIN	2025-09-02	CATT / T.evansi, Blood Smear Giemsa	1	0
BELGIUM	2025-01-15	CATT / T.evansi, Blood Smear Giemsa	1	0
BELGIUM	2025-07-04	CATT / T.evansi	1	0
BELGIUM	2025-09-12	CATT / T.evansi, Blood Smear Giemsa	1	0
BELGIUM	2025-10-30	CATT / T.evansi, Blood Smear Giemsa	1	0
BELGIUM	2025-12-18	CATT / T.evansi, Blood Smear Giemsa	2	0
CANADA	2025-01-07	CATT / T.evansi, Blood Smear Giemsa	1	0
CANADA	2025-02-06	CATT / T.evansi, Blood Smear Giemsa	2	0
CANADA	2025-02-12	CATT / T.evansi, Blood Smear Giemsa	1	0
CANADA	2025-02-05	CATT / T.evansi, Blood Smear Giemsa	1	0
CANADA	2025-05-05	CATT / T.evansi, Blood Smear Giemsa	2	0
CANADA	2025-05-09	CATT / T.evansi, Blood Smear Giemsa	2	0
CANADA	2025-05-14	CATT / T.evansi, Blood Smear Giemsa	1	0
CANADA	2025-05-23	CATT / T.evansi, Blood Smear Giemsa	3	0
CANADA	2025-06-04	CATT / T.evansi, Blood Smear Giemsa	1	0
CANADA	2025-06-05	CATT / T.evansi, Blood Smear Giemsa	1	0
CANADA	2025-06-20	CATT / T.evansi, Blood Smear Giemsa	2	0
CANADA	2025-07-28	CATT / T.evansi, Blood Smear Giemsa	2	0
CANADA	2025-07-31	CATT / T.evansi, Blood Smear Giemsa	1	0
CANADA	2025-08-14	CATT / T.evansi, Blood Smear Giemsa	6	0
CANADA	2025-08-21	CATT / T.evansi, Blood Smear Giemsa	2	0
CANADA	2025-08-27	CATT / T.evansi, Blood Smear Giemsa	1	0
CANADA	2025-08-29	CATT / T.evansi, Blood Smear Giemsa	3	0
CANADA	2025-09-19	CATT / T.evansi, Blood Smear Giemsa	2	0
CANADA	2025-10-01	CATT / T.evansi, Blood Smear Giemsa	1	0
CANADA	2025-10-14	CATT / T.evansi, Blood Smear Giemsa	2	0
CANADA	2025-10-27	CATT / T.evansi, Blood Smear Giemsa	2	0
CANADA	2025-11-20	CATT / T.evansi, Blood Smear Giemsa	1	0
CANADA	2025-11-21	CATT / T.evansi, Blood Smear Giemsa	1	0

Nick Van Reet - - BELGIUM

CANADA	2025-11-25	CATT / T.evansi, Blood Smear Giemsa	1	0
CANADA	2025-12-24	CATT / T.evansi, Blood Smear Giemsa	1	0
ESTONIA	2025-03-03	CATT / T.evansi, ELISA / water soluble antigen, ELISA / RoTat 1.2	0	1
FINLAND	2025-12-10	CATT / T.evansi	1	0
GERMANY	2025-02-14	CATT / T.evansi, Blood Smear Giemsa	0	1
GERMANY	2025-05-09	CATT / T.evansi, ELISA / water soluble antigen, ELISA / RoTat 1.2	0	1
GERMANY	2025-09-02	CATT / T.evansi, Blood Smear Giemsa	0	1
JAMAICA	2025-10-27	CATT / T.evansi, Blood Smear Giemsa	2	0
THE NETHERLANDS	2025-10-01	CATT / T.evansi, ELISA / water soluble antigen, ELISA / RoTat 1.2	0	1
THE NETHERLANDS	2025-10-06	CATT / T.evansi, ELISA / water soluble antigen, ELISA / RoTat 1.2, Immune Trypanolysis	0	1
THE NETHERLANDS	2025-12-23	CATT / T.evansi	0	1
SWEDEN	2025-07-16	CATT / T.evansi	1	0
SWEDEN	2025-08-22	CATT / T.evansi	1	0
SWEDEN	2025-08-25	CATT / T.evansi	2	0
SWEDEN	2025-08-27	CATT / T.evansi	1	0
SWEDEN	2025-09-19	CATT / T.evansi	3	0
UNITED KINGDOM	2025-03-04	CATT / T.evansi, ELISA / water soluble antigen, ELISA / RoTat 1.2, Immune Trypanolysis	0	1
UNITED KINGDOM	2025-08-29	CATT / T.evansi, ELISA / water soluble antigen, ELISA / RoTat 1.2	0	3
UNITED KINGDOM	2025-10-08	CATT / T.evansi, ELISA / water soluble antigen, ELISA / RoTat 1.2, Immune Trypanolysis	0	1
UNITED STATES OF AMERICA	2025-01-06	CATT / T.evansi, Blood Smear Giemsa	4	0
UNITED STATES OF AMERICA	2025-01-08	CATT / T.evansi, Blood Smear Giemsa	1	0
UNITED STATES OF AMERICA	2025-01-09	CATT / T.evansi, Blood Smear Giemsa	3	0
UNITED STATES OF AMERICA	2025-01-13	CATT / T.evansi, Blood Smear Giemsa	3	0
UNITED STATES OF AMERICA	2025-01-17	CATT / T.evansi, Blood Smear Giemsa	1	0
UNITED STATES OF AMERICA	2025-01-21	CATT / T.evansi, Blood Smear Giemsa	1	0
UNITED STATES OF AMERICA	2025-01-22	CATT / T.evansi, Blood Smear Giemsa	7	0
UNITED STATES OF AMERICA	2025-01-29	CATT / T.evansi, Blood Smear Giemsa	8	0
UNITED STATES OF AMERICA	2025-01-31	CATT / T.evansi, Blood Smear Giemsa	6	0
UNITED STATES OF AMERICA	2025-02-04	CATT / T.evansi, Blood Smear Giemsa	1	0
UNITED STATES OF AMERICA	2025-02-05	CATT / T.evansi, Blood Smear Giemsa	2	0

UNITED STATES OF AMERICA	2025-02-06	CATT / T.evansi, Blood Smear Giemsa	1	0
UNITED STATES OF AMERICA	2025-02-07	CATT / T.evansi, Blood Smear Giemsa	1	0
UNITED STATES OF AMERICA	2025-02-10	CATT / T.evansi, Blood Smear Giemsa	1	0
UNITED STATES OF AMERICA	2025-02-12	CATT / T.evansi, Blood Smear Giemsa	2	0
UNITED STATES OF AMERICA	2025-02-20	CATT / T.evansi, Blood Smear Giemsa	6	0
UNITED STATES OF AMERICA	2025-02-25	CATT / T.evansi, Blood Smear Giemsa	2	0
UNITED STATES OF AMERICA	2025-03-03	CATT / T.evansi, Blood Smear Giemsa	1	0
UNITED STATES OF AMERICA	2025-03-11	CATT / T.evansi, Blood Smear Giemsa	1	0
UNITED STATES OF AMERICA	2025-03-12	CATT / T.evansi, Blood Smear Giemsa	5	0
UNITED STATES OF AMERICA	2025-03-14	CATT / T.evansi, Blood Smear Giemsa	4	0
UNITED STATES OF AMERICA	2025-03-17	CATT / T.evansi, Blood Smear Giemsa	5	0
UNITED STATES OF AMERICA	2025-03-20	CATT / T.evansi, Blood Smear Giemsa	2	0
UNITED STATES OF AMERICA	2025-03-24	CATT / T.evansi, Blood Smear Giemsa	3	0
UNITED STATES OF AMERICA	2025-03-31	CATT / T.evansi, Blood Smear Giemsa	1	0
UNITED STATES OF AMERICA	2025-04-03	CATT / T.evansi, Blood Smear Giemsa	2	0
UNITED STATES OF AMERICA	2025-04-09	CATT / T.evansi, Blood Smear Giemsa	1	0
UNITED STATES OF AMERICA	2025-04-11	CATT / T.evansi, Blood Smear Giemsa	1	0
UNITED STATES OF AMERICA	2025-04-17	CATT / T.evansi, Blood Smear Giemsa	1	0
UNITED STATES OF AMERICA	2025-04-24	CATT / T.evansi, Blood Smear Giemsa	1	0
UNITED STATES OF AMERICA	2025-04-25	CATT / T.evansi, Blood Smear Giemsa	1	0
UNITED STATES OF AMERICA	2025-04-30	CATT / T.evansi, Blood Smear Giemsa	3	0
UNITED STATES OF AMERICA	2025-05-02	CATT / T.evansi, Blood Smear Giemsa	2	0
UNITED STATES OF AMERICA	2025-05-05	CATT / T.evansi, Blood Smear Giemsa	5	0
UNITED STATES OF AMERICA	2025-05-09	CATT / T.evansi, Blood Smear Giemsa	3	0
UNITED STATES OF AMERICA	2025-05-14	CATT / T.evansi, Blood Smear Giemsa	1	0
UNITED STATES OF AMERICA	2025-05-15	CATT / T.evansi, Blood Smear Giemsa	1	0
UNITED STATES OF AMERICA	2025-05-19	CATT / T.evansi, Blood Smear Giemsa	8	0
UNITED STATES OF AMERICA	2025-05-21	CATT / T.evansi, Blood Smear Giemsa	2	0
		CATT / T.evansi, Blood Smear		

UNITED STATES OF AMERICA	2025-05-23	Giemsa	3	0
UNITED STATES OF AMERICA	2025-05-26	CATT / T.evansi, Blood Smear Giemsa	1	0
UNITED STATES OF AMERICA	2025-06-03	CATT / T.evansi, Blood Smear Giemsa	2	0
UNITED STATES OF AMERICA	2025-06-04	CATT / T.evansi, Blood Smear Giemsa	1	0
UNITED STATES OF AMERICA	2025-06-05	CATT / T.evansi, Blood Smear Giemsa	2	0
UNITED STATES OF AMERICA	2025-06-06	CATT / T.evansi, Blood Smear Giemsa	5	0
UNITED STATES OF AMERICA	2025-06-10	CATT / T.evansi, Blood Smear Giemsa	4	0
UNITED STATES OF AMERICA	2025-06-16	CATT / T.evansi, Blood Smear Giemsa	3	0
UNITED STATES OF AMERICA	2025-06-17	CATT / T.evansi, Blood Smear Giemsa	1	0
UNITED STATES OF AMERICA	2025-06-18	CATT / T.evansi, Blood Smear Giemsa	1	0
UNITED STATES OF AMERICA	2025-06-19	CATT / T.evansi, Blood Smear Giemsa	1	0
UNITED STATES OF AMERICA	2025-06-23	CATT / T.evansi, Blood Smear Giemsa	1	0
UNITED STATES OF AMERICA	2025-06-27	CATT / T.evansi, Blood Smear Giemsa	1	0
UNITED STATES OF AMERICA	2025-06-30	CATT / T.evansi, Blood Smear Giemsa	1	0
UNITED STATES OF AMERICA	2025-07-01	CATT / T.evansi, Blood Smear Giemsa	1	0
UNITED STATES OF AMERICA	2025-07-02	CATT / T.evansi, Blood Smear Giemsa	2	0
UNITED STATES OF AMERICA	2025-07-07	CATT / T.evansi, Blood Smear Giemsa	2	0
UNITED STATES OF AMERICA	2025-07-08	CATT / T.evansi, Blood Smear Giemsa	4	0
UNITED STATES OF AMERICA	2025-07-10	CATT / T.evansi, Blood Smear Giemsa	1	0
UNITED STATES OF AMERICA	2025-07-11	CATT / T.evansi, Blood Smear Giemsa	3	0
UNITED STATES OF AMERICA	2025-07-16	CATT / T.evansi, Blood Smear Giemsa	1	0
UNITED STATES OF AMERICA	2025-07-22	CATT / T.evansi, Blood Smear Giemsa	3	0
UNITED STATES OF AMERICA	2025-07-28	CATT / T.evansi, Blood Smear Giemsa	3	0
UNITED STATES OF AMERICA	2025-07-31	CATT / T.evansi, Blood Smear Giemsa	1	0
UNITED STATES OF AMERICA	2025-08-01	CATT / T.evansi, Blood Smear Giemsa	5	0
UNITED STATES OF AMERICA	2025-08-11	CATT / T.evansi, Blood Smear Giemsa	1	0
UNITED STATES OF AMERICA	2025-08-12	CATT / T.evansi, Blood Smear Giemsa	1	0
UNITED STATES OF AMERICA	2025-08-14	CATT / T.evansi, Blood Smear Giemsa	7	0
UNITED STATES OF AMERICA	2025-08-18	CATT / T.evansi, Blood Smear	1	0

		Giemsa		
UNITED STATES OF AMERICA	2025-08-19	CATT / T.evansi, Blood Smear Giemsa	3	0
UNITED STATES OF AMERICA	2025-08-21	CATT / T.evansi, Blood Smear Giemsa	1	0
UNITED STATES OF AMERICA	2025-08-22	CATT / T.evansi, Blood Smear Giemsa	1	0
UNITED STATES OF AMERICA	2025-08-26	CATT / T.evansi, Blood Smear Giemsa	2	0
UNITED STATES OF AMERICA	2025-08-27	CATT / T.evansi, Blood Smear Giemsa	3	0
UNITED STATES OF AMERICA	2025-09-02	CATT / T.evansi, Blood Smear Giemsa	1	0
UNITED STATES OF AMERICA	2025-09-10	CATT / T.evansi, Blood Smear Giemsa	3	0
UNITED STATES OF AMERICA	2025-09-11	CATT / T.evansi, Blood Smear Giemsa	5	0
UNITED STATES OF AMERICA	2025-09-15	CATT / T.evansi, Blood Smear Giemsa	2	0
UNITED STATES OF AMERICA	2025-09-19	CATT / T.evansi, Blood Smear Giemsa	4	0
UNITED STATES OF AMERICA	2025-09-22	CATT / T.evansi, Blood Smear Giemsa	1	0
UNITED STATES OF AMERICA	2025-09-26	CATT / T.evansi, Blood Smear Giemsa	3	0
UNITED STATES OF AMERICA	2025-09-29	CATT / T.evansi, Blood Smear Giemsa	3	0
UNITED STATES OF AMERICA	2025-10-01	CATT / T.evansi, Blood Smear Giemsa	1	0
UNITED STATES OF AMERICA	2025-10-06	CATT / T.evansi, Blood Smear Giemsa	11	0
UNITED STATES OF AMERICA	2025-10-09	CATT / T.evansi, Blood Smear Giemsa	2	0
UNITED STATES OF AMERICA	2025-10-10	CATT / T.evansi, Blood Smear Giemsa	1	0
UNITED STATES OF AMERICA	2025-10-14	CATT / T.evansi, Blood Smear Giemsa	2	0
UNITED STATES OF AMERICA	2025-10-17	CATT / T.evansi, Blood Smear Giemsa	2	0
UNITED STATES OF AMERICA	2025-10-20	CATT / T.evansi, Blood Smear Giemsa	1	0
UNITED STATES OF AMERICA	2025-10-23	CATT / T.evansi, Blood Smear Giemsa	1	0
UNITED STATES OF AMERICA	2025-10-31	CATT / T.evansi, Blood Smear Giemsa	5	0
UNITED STATES OF AMERICA	2025-11-04	CATT / T.evansi, Blood Smear Giemsa	1	0
UNITED STATES OF AMERICA	2025-11-06	CATT / T.evansi, Blood Smear Giemsa	13	0
UNITED STATES OF AMERICA	2025-11-10	CATT / T.evansi, Blood Smear Giemsa	2	0
UNITED STATES OF AMERICA	2025-11-12	CATT / T.evansi, Blood Smear Giemsa	19	0
UNITED STATES OF AMERICA	2025-11-13	CATT / T.evansi, Blood Smear Giemsa	4	0
UNITED STATES OF AMERICA	2025-11-19	CATT / T.evansi, Blood Smear Giemsa	1	0

UNITED STATES OF AMERICA	2025-11-20	CATT / T.evansi, Blood Smear Giemsa	3	0
UNITED STATES OF AMERICA	2025-11-21	CATT / T.evansi, Blood Smear Giemsa	2	0
UNITED STATES OF AMERICA	2025-11-26	CATT / T.evansi, Blood Smear Giemsa	10	0
UNITED STATES OF AMERICA	2025-11-27	CATT / T.evansi, Blood Smear Giemsa	1	0
UNITED STATES OF AMERICA	2025-11-28	CATT / T.evansi, Blood Smear Giemsa	1	0
UNITED STATES OF AMERICA	2025-12-03	CATT / T.evansi, Blood Smear Giemsa	1	0
UNITED STATES OF AMERICA	2025-12-05	CATT / T.evansi, Blood Smear Giemsa	1	0
UNITED STATES OF AMERICA	2025-12-08	CATT / T.evansi, Blood Smear Giemsa	1	0
UNITED STATES OF AMERICA	2025-12-09	CATT / T.evansi, Blood Smear Giemsa	1	0
UNITED STATES OF AMERICA	2025-12-11	CATT / T.evansi, Blood Smear Giemsa	10	0
UNITED STATES OF AMERICA	2025-12-12	CATT / T.evansi, Blood Smear Giemsa	1	0
UNITED STATES OF AMERICA	2025-12-15	CATT / T.evansi, Blood Smear Giemsa	3	0
UNITED STATES OF AMERICA	2025-12-18	CATT / T.evansi, Blood Smear Giemsa	1	0
UNITED STATES OF AMERICA	2025-12-22	CATT / T.evansi, Blood Smear Giemsa	1	0
UNITED STATES OF AMERICA	2025-12-24	CATT / T.evansi, Blood Smear Giemsa	6	0

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
ALGERIA	Technical assistance for immune trypanolysis (TL), including protocol review and correction, French translation verification, sharing SOPs and WOAH references, and preparation of training documentation and illustrative material.	Remote (Email-based scientific support)
ARGENTINA	Advice on expiry and stability of Surra ELISA reagents (lyophilised VSG antigen and positive control serum), storage conditions (−60 °C aliquots), and interpretation of increased background OD in coated plates stored 6–8 months.	Remote (Email-based laboratory guidance)
BELGIUM	Scientific advice on diagnostic strategies for Surra prevalence studies and strain typing in wildlife/livestock (ELISA formats, CATT, TL, TBR/18S PCR, RoTat PCR, minicircle typing, sequencing). Academic supervision of MSc thesis on T. b. brucei engineered to express RoTat 1.2 VSG for immune trypanolysis application.	Remote (Email-based expert consultation and academic supervision)
CROATIA	Technical consultation on establishment of a National Reference Laboratory (NRL) for Surra, including accreditation	Remote (Email-based regulatory and

	requirements and participation in Proficiency Testing schemes.	scientific consultation)
FRANCE	Exchange on diagnostic assay validation in the context of HAT/Surra projects, including sharing of WOAH validation guidance documents and alignment with international validation standards.	Remote (Email and document exchange)
GERMANY	Diagnostic testing and interpretation of Surra results (CATT and ELISA) for equine export case, including official reporting to support regulatory decision-making.	Laboratory testing + Remote communication
JAPAN	Bilateral coordination of inter-laboratory Proficiency Testing for Surra diagnostics (blind PCR DNA panels and methanol-fixed smears), advisory input on RT-qPCR marker selection (TBR/177T/18S), molecular validation strategy, and phylogenetic updates for the WOAH Terrestrial Manual chapter.	Remote (Email-based scientific coordination and drafting)
PORTUGAL	Discussion on the provision of T. evansi water-soluble extract antigen for ELISA, guidance on aliquoting and dry ice shipment logistics, and discussion on feasibility of Leishmania antigen production.	Remote (Email-based scientific coordination and drafting)
QATAR	Technical guidance on interpretation of discordant CATT results (weak 1/8 positives vs negative reference results), assessment of false positive/false negative risk, sample stability concerns, and recommendation for confirmatory testing and stability studies.	Remote (Email-based laboratory consultation)
SAUDI ARABIA	Advisory support on participation in Surra Proficiency Testing (PT), including panel design (serology and PCR), shipment feasibility, reporting framework, and reactivation of serum-based PT panels (multispecies considerations).	Remote (Email-based coordination and quality assurance guidance)
SINGAPORE	Design and interpretation of a diagnostic algorithm for T. evansi in dogs (CATT cut-off 1/8, TBR-PCR strategy, ITS1 follow-up, trypanolysis confirmation), including validation strategy and provision of DNA reference material.	Remote (Email, technical guidance documents)
SOUTH AFRICA	Support for establishing soluble-lysate ELISA capacity (culture conditions, antigen production, MTA logistics, training planning). Emergency diagnostic coordination for suspected Surra case (import permits, UN3373 shipment, confirmatory testing CATT/ELISA/PCR). Regulatory clarification on WOAH Reference Laboratory status and accredited diagnostic tests (ISO 17025).	Remote (Email-based consultation) + Hybrid (planned training visit)
THE NETHERLANDS	Advisory input for export-related Surra testing, handling inconclusive CATT results, ISO17025 accreditation	Hybrid (In-person meeting + follow-up

	considerations, and discussion on standardisation of soluble antigen ELISA.	email)
UNITED ARAB EMIRATES	Expert contribution to Workshop on Validation of Diagnostic Methods (ISO/IEC 17025:2017), using Surra as case study; guidance on test performance evaluation, quality control systems, field implementation challenges, and strengthening regional diagnostic capacity.	Hybrid (Expert lecture + technical discussions; virtual participation)
UNITED KINGDOM	Diagnostic consultation for equine export Surra cases, including interpretation of inconclusive CATT results, recommendation of ELISA and trypanolysis confirmation, and RT-qPCR feasibility considerations. Scientific advice on general Trypanosomiasis testing requirements for equine export (including Sri Lanka), addressing cross-reactivity, species-specific vs broad assays, and molecular PCR options.	Remote (Email-based scientific consultation)

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
Harmonisation and validation of serological assays for Trypanosoma evansi (Surra) in equines	Ongoing (2024–present)	Assessment of concordance between CATT, ELISA (water-soluble antigen and RoTat 1.2 VSG), and immune trypanolysis (TL) for Surra diagnosis in horses; evaluation of diagnostic cut-off determination and discrimination between Surra and non-Surra Trypanosoma infections; preparation of joint scientific publication.	Wageningen Bioveterinary Research (WBVR), The Netherlands Clinica Equina SRL, Buenos Aires Province, Argentina ANSES – European Union Reference Laboratory (EURL) for Equine Diseases, France	ARGENTINA FRANCE THE NETHERLANDS
Adaptation of T. evansi and T. equiperdum to in vitro culture and kinetoplast DNA dynamics	Ongoing (2024–present; MSc study completed, follow-up collaboration ongoing under MTA)	Investigation of kinetoplast DNA loss and stability during in vitro adaptation; generation and exchange of characterised parasite strains for downstream molecular and diagnostic research.	Faculty of Biomedical Sciences, University of Antwerp (Belgium) University of Edinburgh (UK)	UNITED KINGDOM

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

Yes

Research need : 1

Please type the Research need: Harmonisation and regulatory validation of molecular diagnostic protocols (PCR/qPCR) for Surra (Trypanosoma evansi) Surra diagnosis increasingly relies on molecular confirmation to resolve discordant serology, confirm low-parasitaemia infections, and support trade-related decision-making. However, current implementation of PCR and qPCR assays varies substantially between laboratories with respect to target selection (e.g. TBR/satellite DNA, 18S rRNA/rDNA, RoTat 1.2, Type B markers), analytical validation criteria, internal controls, interpretation thresholds, and reporting rules. There is currently no fully harmonised, WOAH-aligned molecular confirmation framework defining minimum validation performance (limit of detection, specificity, repeatability),

quality control requirements (extraction controls, inhibition controls, contamination safeguards), and standardized interpretation categories (positive/negative/inconclusive, retesting criteria). A multi-laboratory comparative validation study using blinded panels (DNA, stabilised blood and/or smears) is needed to generate the evidence base required to update the Terrestrial Manual and establish harmonised molecular standards for Surra diagnosis.

Relevance for WOAH Disease Control, Capacity Building, Standard Setting, Facilitation of international collaboration,

Relevance for the Code or Manual Manual,

Field Epidemiology and Surveillance, Diagnostics,

Animal Category Terrestrial,

Disease:

Surra (Trypanosoma evansi)

Kind of disease (Zoonosis, Transboundary diseases) Transboundary diseases,

Additional keywords if needed: One keyword per entry

Molecular diagnostics,PCR validation,Inter-laboratory comparability,Proficiency testing,Trade certification,Trypanozoon

If any, please specify relevance for Codes or Manual, chapter and title

(e.g. Terrestrial Manual Chapter 2.3.5 - Minimum requirements for aseptic production in vaccine manufacture)

Answer: Terrestrial Manual – Chapter 3.1.21. Surra in all species (Trypanosoma evansi infection) – Section on molecular diagnostic methods (PCR/qPCR validation and interpretation criteria)

Notes:

Answer: This regulatory research need is directly linked to increasing international movement of equines and other livestock, frequent use of molecular confirmation in export contexts, and the need for equivalence of diagnostic results across WOAH Member laboratories. Harmonised molecular standards would strengthen proficiency testing schemes and improve comparability of results between WOAH Reference Laboratories and national laboratories.

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:

Details of the Data Collected (2025–2026 ongoing):

Event-based surveillance linked to international animal movements: recording origin/destination, reason for testing (pre-export, post-arrival, regulatory follow-up), and final case classification (confirmed / ruled out / inconclusive) for suspect Surra investigations in equids and other hosts.

Routine metadata capture for submitted samples: host species, sample matrix (serum/plasma/whole blood/smears), and key pre-analytical variables (shipping duration, cold chain, haemolysis/centrifugation status) relevant to interpretation and surveillance quality.

Serological titre distributions and confirmation outcomes: monitoring CATT endpoint titres (including weak 1/8 reactions) and concordance with ELISA, immune trypanolysis (TL) and PCR to inform evidence-based interpretation thresholds in low-prevalence export contexts.

Geographically anchored seroprevalence datasets: structured datasets from Argentina (equids) and Spain (multispecies) combining CATT/ELISA/TL and PCR outputs to support regional risk assessment and diagnostic algorithm optimisation.

Molecular confirmation and strain-typing where feasible: use of Trypanozoon PCR markers (e.g., TBR/177T ± 18S) and RoTat 1.2 related assays to support classification (Type A vs non-RoTat suspicion) when epidemiologically relevant.

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

Yes

If the answer is yes, please provide details of the data collected:

Case-based diagnostic interpretation reports for international animal movement investigations (export/import contexts), including concordance analysis between CATT, ELISA, immune trypanolysis (TL), and PCR results.

Summary reports shared with partner institutions in Argentina, Spain, and the Netherlands, detailing seroprevalence findings, inter-laboratory variability, titre distribution (including weak CATT reactions), and implications for diagnostic interpretation.

Technical data exchange within the WOAH Reference Laboratory network to support ongoing updates of the Terrestrial Manual chapter on Surra (Trypanosoma evansi infection), particularly regarding diagnostic standardisation and interpretation thresholds.

Contributions to collaborative scientific analyses (including molecular and serological datasets) informing manuscript preparation and refinement of surveillance algorithms in low-prevalence export settings.

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
Manuscript in preparation on serological assay development and validation for Surra (Trypanosoma evansi), based on comparative ELISA evaluations (water-soluble extract ELISA, RoTat 1.2 ELISA, immune trypanolysis) using datasets and samples from Argentina, the Netherlands, France (EURL), and material received at the WOAH Reference Laboratory. The study focuses on cut-off optimisation, specificity challenges in low-prevalence settings, and differentiation between Surra and non-Surra Trypanozoon infections.

b) International conferences:

3
ISCTRC Conference (Kenya): Presentation on a novel RT-qPCR platform for tracking Trypanozoon infections in humans and animals, including marker optimisation and diagnostic performance.

EURL Workshop (France): Presentation on Trypanozoon diagnostics and development of a repeat-region based RT-qPCR targeting single nucleotide polymorphisms, enabling sensitive and specific discrimination of Trypanozoon subtypes (e.g. T. equiperdum lineages, T. evansi Type A and Type B).

IAEA Workshop (Middle East region): Presentation on Trypanosoma infections in the Middle East (T. evansi, T. equiperdum, T. vivax), focusing on diagnostic validation and laboratory capacity strengthening.

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)	
EN ISO/IEC 17025:201	PDF	147-TEST-17-N_20250813-1.pdf

19. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
CATT / T. evansi	BELAC
Blood smear Giemsa	BELAC

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

Yes

The Institute of Tropical Medicine (ITM), Antwerp maintains an institutional biosafety and biorisk management framework compliant with Belgian and EU regulations governing work with infectious agents. Work with Trypanosoma evansi and related Trypanozoon parasites is conducted under BSL2 containment conditions in certified laboratory facilities. All activities involving pathogens, genetically modified organisms, or animal experiments are subject to prior review and approval by the institutional Biosafety Committee and the Ethical Committee for Animal Experimentation, in accordance with national legislation and FELASA standards. Periodic internal audits and inspections are performed to ensure compliance with biosafety, biosecurity, and quality management procedures (including ISO 17025 requirements where applicable).

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?

Yes

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

Yes

NETWORK/DISEASE	ROLE OF YOUR LABORATORY (PARTICIPANT, ORGANISER, ETC)	NO. PARTICIPANTS	PARTICIPATING WOAH REF. LABS
Surra (Trypanosoma evansi)	Co-designated WOAH Reference Laboratory; active participant in inter-laboratory coordination (Manual revision, PT planning, diagnostic standardisation)	2	Institute of Tropical Medicine (Belgium); National Research Center for Protozoan Diseases, Obihiro University (Japan)

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?

Yes

Purpose of the proficiency test:	Role of your Reference Laboratory (organiser/ participant)	No. participating Laboratories	Participating WOAH Ref. Labs/ organising WOAH Ref Lab
Inter-laboratory comparison of CATT/T. evansi serological testing to assess concordance, reproducibility and interpretation consistency of Surra diagnostics across reference laboratories working on Trypanozoon infections.	Participant	Limited ring trial (exact number confidential to organiser; panel distributed to selected reference laboratories)	Organising laboratory: ANSES (France) – WOAH Reference Laboratory for Dourine (Trypanosoma equiperdum) and EU Reference Laboratory for Equine Diseases Participating laboratory: Institute of Tropical Medicine (Belgium) – WOAH Reference Laboratory for Surra (Trypanosoma evansi)

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?

Yes

Title of the project or contract	Scope	Name(s) of relevant WOAH Reference Laboratories
Bilateral Inter-Laboratory Harmonisation Project for	Development and harmonisation of diagnostic approaches for Surra, including planned exchange of blind PCR DNA panels and methanol-fixed Giemsa-stained blood smears; comparative evaluation of RT-qPCR marker systems (TBR, 177T, 18S rRNA); alignment	Institute of Tropical Medicine (Belgium) – WOAH

Molecular and Parasitological Diagnosis of Surra (Trypanosoma evansi)	of interpretation criteria for molecular and parasitological assays. The collaboration also contributes to coordinated updates of the WOAH Terrestrial Manual chapter on Surra, including molecular diagnostics and phylogenetic interpretation of Trypanozoon. Implementation phase planned from 2026 onward.	Reference Laboratory for Surra. National Research Center for Protozoan Diseases, Obihiro University (Japan) – WOAH Reference Laboratory for Surra.

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?

No

Although no formal ISO/WOAH-structured inter-laboratory proficiency testing schemes were organised with non-WOAH laboratories during the reporting period, the Reference Laboratory conducted structured inter-laboratory diagnostic comparison studies with external veterinary laboratories (including Wageningen Bioveterinary Research, The Netherlands, and Clínica Equina, Argentina).

These collaborations involved comparative evaluation of CATT/T. evansi and/or, ELISA (RoTat 1.2 and water-soluble antigen formats) on shared equine sample panels in export-related contexts. The objective was to assess diagnostic concordance, interpretation of seropositive results, and confirmatory strategies. These activities contributed to diagnostic harmonisation but were not organised as formal proficiency testing schemes under ISO 17043 or WOAH PT frameworks.

TOR12: EXPERT CONSULTANTS

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

Yes

Kind of consultancy	Location	Subject (facultative)
Revision and scientific review of WOAH Terrestrial Manual chapter	Remote (email coordination within WOAH Reference Laboratory network)	Update of Chapter 3.1.21 – Surra in all species (Trypanosoma evansi infection), including phylogenetic interpretation of Trypanozoon (integration of recent genomic data) and discussion on inclusion and validation requirements of real-time/qPCR assays under Chapter 1.1.6 (Validation of diagnostic assays).

29. Additional comments regarding your report:

Yes

During the reporting period, formal inter-laboratory proficiency testing schemes were limited due to structural constraints (absence of a national reference laboratory designation for Surra in Belgium and limited availability of structured PT frameworks for non-tsetse transmitted animal trypanosomes). However, proactive coordination with other WOAH Reference Laboratories has been initiated to implement a bilateral proficiency testing scheme in 2026.

Significant effort was invested in diagnostic harmonisation activities, comparative inter-laboratory evaluation of serological and molecular assays, and preparation of a scientific manuscript addressing ELISA standardisation and cut-off determination using international sample panels (Argentina, The Netherlands, France).

The laboratory is also contributing to revision of the WOAH Terrestrial Manual chapter on Surra, particularly regarding molecular diagnostics and phylogenetic interpretation of Trypanozoon.

These activities strengthen future standardisation, validation, and capacity-building efforts within the WOAH framework.