

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:	Brucellosis (Brucella abortus, B. melitensis)
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Name (including Title) of Head of Laboratory (Responsible Official):	Dr.Pacharee Thongkamkoon, Director of the National Institute of Animal Health, DLD Miss Reka Kanitpun, Chief of Immunology Section (Brucellosis Laboratory)
Name (including Title and Position) of OIE Reference Expert:	Miss Monaya Ekgatat, Brucellosis Advisor to DLD, National Institute of Animal Health, Department of Livestock Development
Which of the following defines your laboratory? Check all that apply:	Governmental

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	
		Nationally	Internationally
Indirect diagnostic tests		Nationally	Internationally
RBT	Yes	61,776	-
SAT	Yes	0	-
CFT	Yes	407	-
I-ELISA(bovine serum)	Yes	559	-
I-ELISA(bovine milk)	Yes	232	-
I-ELISA(caprine/ovine serum)	Yes	931	-
I-ELISA (others)	No	38	-
FPA	Yes	120	-
Milk Ring Test	Yes	232	-
Direct diagnostic tests		Nationally	Internationally
Culture (milk/organ/swab-fluid)	Yes	78/267/0	-
Brucella spp. PCR/Real time PCR (specimens)	Yes	40/0	-
Brucella molecular typing	Yes	28	-
Control of diagnostic antigen batches	Yes	40 (RBT antigen-in house)	2 (RBT antigen)

***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?

Yes

Type of reagent available	Related diagnostic test	Produced/ provide	Amount supplied nationally (ml, mg)	Amount supplied internationally (ml, mg)	No. of recipient OIE Member Countries	Region of recipients
National positive control serum	Diagnostic reagents control	Producd/provided	43 tube (43x3.0 mL)	-	-	<input type="checkbox"/> Africa <input type="checkbox"/> Americ as <input type="checkbox"/> Asia and Pacific <input type="checkbox"/> Europe <input type="checkbox"/> Middle East
National standard panel of positive sera	Diagnostic reagents batch control	Producd/provided	-	-	-	<input type="checkbox"/> Africa <input type="checkbox"/> Americ as <input type="checkbox"/> Asia and Pacific <input type="checkbox"/> Europe <input type="checkbox"/> Middle East
National negative control serum	Diagnostic reagents control	Producd/provided	43 tube (43x3.0 mL)	-	-	<input type="checkbox"/> Africa <input type="checkbox"/> Americ as <input type="checkbox"/> Asia and Pacific <input type="checkbox"/> Europe <input type="checkbox"/> Middle East
National standard panel of negative sera	Diagnostic reagents batch control	Producd/provided	-	-	-	<input type="checkbox"/> Africa <input type="checkbox"/> Americ as <input type="checkbox"/> Asia and Pacific <input type="checkbox"/> Europe <input type="checkbox"/> Middle East
Negative serum (for reconstitute)	Diagnostic reagents batch control	Producd/provided	-	-	-	<input type="checkbox"/> Africa <input type="checkbox"/> Americ as <input type="checkbox"/> Asia and Pacific <input type="checkbox"/> Europe <input type="checkbox"/> Middle East

Secondary standard bovine serum for RBT	RBT antigen batch control	Producd/provided	-	-	-	<input type="checkbox"/> Africa <input type="checkbox"/> Americ as <input type="checkbox"/> Asia and Pacific <input type="checkbox"/> Europe <input type="checkbox"/> Middle East
Secondary standard bovine serum for CFT	CFT antigen batch contro	Producd/provided	-	-	-	<input type="checkbox"/> Africa <input type="checkbox"/> Americ as <input type="checkbox"/> Asia and Pacific <input type="checkbox"/> Europe <input type="checkbox"/> Middle East
Secondary standard bovine serum for SAT	SAT antigen batch contro	Producd/provided	-	-	-	<input type="checkbox"/> Africa <input type="checkbox"/> Americ as <input type="checkbox"/> Asia and Pacific <input type="checkbox"/> Europe <input type="checkbox"/> Middle East
Secondary standard goat serum for RBT	Diagnostic reagents batch control	Producd/provided	-	-	-	<input type="checkbox"/> Africa <input type="checkbox"/> Americ as <input type="checkbox"/> Asia and Pacific <input type="checkbox"/> Europe <input type="checkbox"/> Middle East
RBT antigen	Diagnostic reagents	Provide	1,355 bottles (1,355x10 mL)	-	-	<input type="checkbox"/> Africa <input type="checkbox"/> Americ as <input type="checkbox"/> Asia and Pacific <input type="checkbox"/> Europe <input type="checkbox"/> Middle East
MRT antigen	Diagnostic reagents	Producd/provided	-	-	-	<input type="checkbox"/> Africa <input type="checkbox"/> Americ as <input type="checkbox"/> Asia and Pacific <input type="checkbox"/> Europe <input type="checkbox"/> Middle East

RSAT antigen	Diagnostic reagents	Produced	-	-	-	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input type="checkbox"/> Europe <input type="checkbox"/> Middle East
PCR (Bruce-ladder)	PCR	Produced/provided	-	-	-	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input type="checkbox"/> Europe <input type="checkbox"/> Middle East
DNA of reference Brucella spp.	Diagnostic positive control	Produced/provided	-	-	-	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input type="checkbox"/> Europe <input type="checkbox"/> Middle East
I-ELISA inhouse kit (NIAH)	Diagnostic reagents	Produced/provided	6,000 tests	-	-	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input type="checkbox"/> Europe <input type="checkbox"/> Middle East

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?

No

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

No

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?

No

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

Yes

Name of the OIE Member Country receiving a technical consultancy	Purpose	How the advice was provided
MYANMAR	MRT	Remote assistance through email communication
JAPAN	ILPT	Remote assistance through email communication
KAZAKHSTAN	ILPT	Remote assistance through email communication

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?

No

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:

- Compiled laboratory surveillance from Regional Veterinary Research and Development Centers (8 labs) and submitted through Bureau of Disease Control and Veterinary Services to Department of Livestock Development.

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:

- Presentation at national and international conference/meeting

**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: 4

1. Monaya Ekgatat, Reka Kanitpun, Prtchana Prakotcheo, Tapakorn Chamchoy. "Brucellosis status during 2015 to 2019 and challenges in disease elimination in Thailand"

The Second International Symposium on Brucellosis, National/OIE Reference Laboratory for Brucellosis, China Institute of Veterinary Drug Control, 19-20 October 2020. (Viddeo conference).

2. Reka Kanitpun and Monaya Ekgatat, Animal Disease Control Programmes in ASEAN: Update on the progress of cooperation on Brucellosis, The twenty eight Meeting of the ASAN Sectoral Working Group on Livestock (ASWGL), 22 July 2020. (Virtual meeting)

3. Participation and follow up progress report of Master students at Kasetsart University, "Webinar on Animal Outbreak Investigation presentation I"; R-FEPTV 2nd module, Cohort 2019, 7-8 May 2020, Presentation of the progress research of Master student on

- Effect of Practical Preventive Measures for Brucellosis on the Occurrence of Brucellosis Seropositivity in Meat Goat Farms in Bangrachan District and Inburi District Singburi Province, Thailand (DR.Nattanan Thuamsuwan)
- Prevalence of brucellosis by milk ring test and KAP of dairy farmers in Hlegu and Taikkyi township, Myanmar (Dr.Hsing Win)

(Co-advisor: Dr.Monaya Ekgatat)

4. Partisipation: Joint-Master Degree Scholarship and the 3rd module of R-FETPV which was organized by the collaboration and partnership of FAO, Universities, and the Department of Livestock Devepment (DVD).

- "Presentation of the concept note of Field study proposal from the candidate, 9th December 2020, 13.00-15.00 hrs. (Bangkok time).

- Final presentation on the draft proposal of the Field Epidemiological Study, 23rd December 2020.

(Monaya Ekgatat)

c) National conferences: 5

1. Certificate "Working in Biosafety Level 3" BIOTEC, National Science and Technology Development (NSTDA), 27-29 November 2020: Dr.Reka Kanitpun; valid 27 November 2020 - 26 November 2023

2. Participation in Virtual meeting on Biosafety and Biocontainment by Prof. Stuart Blacksell, Mahidol Oxford Tropical Medicine Research Unit (MORU), 28 October 2020. (Monaya Ekgatat)

3. Certificate "Workshop for Biosafety and Biosecurity", 17-18 September 2020, The Biosafety Association (Thailand) and BIOTEC: Dr. Reka Kanitpun; valid 17 September 2020 - 18 September 2023.

4. Monaya Ekgatat and Reka Kanitpun, Participation in the meeting of dairy cattle promotion: "Brucellosis in Dairy

cattle”, 2 September 2020, Chainat Provincial Livestock Office,

5. Monaya Ekgat and Reka Kanitpun: Preparedness for ISO/IEC 17025/2017: Brucellosis diagnosis, ILPT and laboratory preparedness. 6 March 2020. Division of Veterinary Inspection and Quarantine, Pathum Thani.

d) Other:

(Provide website address or link to appropriate information) 3

1. <https://rr-asia.oie.int/en/reference-centres/laboratory-twinning-programme/>

2. Participation “Workshop on Framework and Implementation Revision for R-FETPV” (Virtual meeting), 3 days, 2 hours (10.00-12.00, Bangkok time) for everyday workshop, 29 April – 1 May 2020. (Monaya Ekgat)

3. Participation “Workshop on planning guidelines for livestock personnel potential development on field epidemiology” 6 February 2020, Maruay Garden Hotel, Bangkok. (Monaya Ekgat)

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?

No

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 17025:2017	ISOIEC 17025 NIAH_Eng 2020-2022.pdf
ISO 9001:2015	ISO9001NIAH 2020-2023.pdf

16. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
Rose Bengal test (RBT)	ILAC-MRA by Bureau of Laboratory Quality Standard, Department of Medical Science
Complement Fixation test (CFT)	ILAC-MRA by Bureau of Laboratory Quality Standard, Department of Medical Science
I-ELISA	ILAC-MRA by Bureau of Laboratory Quality Standard, Department of Medical Science

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?

Yes

Title of event	Date (mm/yy)	Location	Role (speaker, presenting poster, short communications)	Title of the work presented
The Second International Symposium on Brucellosis	19-20 October 2020	National/OIE Reference Laboratory for Brucellosis, China Institute of Veterinary Drug Control, Beijing, China	Participation and presenting	Brucellosis status during 2015 to 2019 and challenges in disease elimination in Thailand

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.
Asia-Pacific Bovine Brucellosis Interlaboratory Proficiency Test (ILPT) 2020	Organizer (interval 2 years)	49 (National and Regional Brucellosis Laboratories in Asia-Pacific and Brucellosis Laboratories within Thailand)	China

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?

Yes

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

Purpose for inter-laboratory test comparisons ¹	No. participating laboratories	Region(s) of participating OIE Member Countries
Interlaboratory proficiency test on serological tests on RBT, CFT and I-ELISA	49 labs	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input type="checkbox"/> Europe <input type="checkbox"/> Middle East

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:

- Item 8 and Item 14

The laboratory could not carry out diagnostic testing for member countries due to the crisis of COVID 19.

- Draft of OIE Laboratory Twinning Programme on Brucellosis: National Institute of Animal Health (HIAH)-Thailand and National Centre for Animal Health, Bhutan (NCAH)-Bhutan was discussed and prepared in 2019. At this period the document on the process for consideration of NCAH and due to the crisis of COVID 19 that it is caused to delay/suspend.