

WOAH Reference Laboratory Reports Activities 2024

This report has been submitted: 29 janvier 2025 10:57

LABORATORY INFORMATION

*Name of disease (or topic) for which you are a designated WOAH Reference Laboratory:	European foulbrood of honey bees
*Address of laboratory:	105, route des Chappes. CS 20 111. F-06902 Sophia Antipolis. France
*Tel:	+33 (0)4 92 94 37 00
*E-mail address:	marie-pierre.chauzat@anses.fr
Website:	
*Name (including Title) of Head of Laboratory (Responsible Official):	Dr. Richard Thiéry (Head of the Anses Sophia Antipolis Laboratory)
*Name (including Title and Position) of WOAH Reference Expert:	Dr Marie-Pierre CHAUZAT (WOAH expert for American foulbrood; European foulbrood and varroosis ; Head the European laboratory for honeybee health)
*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
none	No	0	0
Direct diagnostic tests		Nationally	Internationally
Recherche de la loque européenne par examen bactérioscopique	Yes	45	0
Détection de Melissococcus			

Marie-Pierre Chauzat - - FRANCE

plutonius agent de la loque européenne par PCR temps réel	Yes	45	0
Isolement et culture de Melissococcus plutonius (agent de la loque européenne)	Yes	6	0

TOR2: REFERENCE MATERIAL

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

No

3. Did your laboratory supply standard reference reagents (nonWOAH-approved) and/or other diagnostic reagents to WOA?H Members?

Yes

Type of reagent available	Related diagnostic test	Produced/ provide	Amount supplied nationally (ml, mg)	Amount supplied internationally (ml, mg)	No. of recipient WOA?H Member Countries	Country of recipients
Souches de référence de Melissococcus plutonius	Examen bactérioscopique	Lames microscopie pré-colorée	5	5	1	UNITED KINGDOM,
Souches de référence de Melissococcus plutonius	Isolement et culture de Melissococcus plutonius	Inoculum bactérien	0	3 x 50 µl	1	UNITED KINGDOM,
Contrôle positif	PCR	Plasmide	4 x 100 µl	0	2	FRANCE,
Contrôle d'extraction positif	PCR	Broyat de larves	4 x 100 µl	0	2	FRANCE,

4. Did your laboratory produce vaccines?

No

5. Did your laboratory supply vaccines to WOA?H Members?

No

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 WOA?H 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 WOA?H Standards for the designated pathogen or disease?

No

TOR4: DIAGNOSTIC TESTING FACILITIES

Marie-Pierre Chauzat - - FRANCE

10. Did your laboratory carry out diagnostic testing for other WOA Members?

No

11. Did your laboratory provide expert advice in technical consultancies on the request of an WOA Member?

Yes

Name of the WOA Member Country receiving a technical consultancy	Purpose	How the advice was provided
BRAZIL	Validation d'un tests diagnostic par PCR temps réel	Conseils à distance par voie de courriers électroniques : Discussions sur la méthode
UNITED KINGDOM	Besoins de matériaux de référence pour la validation de tests diagnostic en bactérioscopie et isolement de la bactérie	Discussion du besoin et organisation de l'envoi des matériaux de référence
SWITZERLAND	Besoins de participation aux EILA	Discussions du besoin et des modalités organisationnelles
BELGIUM	Questionnement sur : 1/ Protocole d'isolement de M. plutonius 2/ la gestion de la loque européenne et l'utilisation d'antibiotiques	Discussions et réponses apportées par voie de mails sur le sujet
KOSOVO	Questionnements sur le rapport EILA et besoin d'un certificat de participation à l'EILA en vue d'un audit 17025	Réponses apportées par mail et fourniture d'un certificat de participation à l'EILA faisant office de rapport intermédiaire
SLOVENIA	Besoin de rapport EILA intermédiaire en vue d'un audit 17025	Fourniture d'un rapport intermédiaire
SRI LANKA	Echanges autour de la mise en place d'un projet de collaboration autour du diagnostic de plusieurs maladies de l'Abeille	Mails
UKRAINE	Echange autour de la possibilité de participer à des essais interlaboratoires, notamment sur la loque américaine	Mails
IRAN	Echanges autour d'un projet de collaboration pour sur le diagnostic de plusieurs maladies de l'Abeille	Mails Echanges dans le cadre d'un congrès scientifique

TOR5: COLLABORATIVE SCIENTIFIC AND TECHNICAL STUDIES

12. Did your laboratory participate in international scientific studies in collaboration with WOA Members other than the own?

No

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

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:

Présentation à l'Annual Workshop du LRUE des résultats de l'EILA PLMP23 " Détection de Paenibacillus larvae / Melissococcus plutonius, agents de la loque américaine / européenne, dans du broyat de larves d'abeilles par : Microscopie, PCR et/ou Culture"

c) National conferences:

4

Franco, S. 2024. « Règlements pour les importations et échanges d'abeilles et de bourdons, exemples de risques sanitaires ». Diplôme inter écoles Diagnostic et gestion sanitaire d'une exploitation apicole, pathologie apicole. Oniris, Nantes, France. 8 mars 2024. Cette conférence a abordé, entre autres, le risque de dispersion de la loque américaine via les échanges internationaux.

Franco, S. 2024. « Bonnes pratiques de prélèvement en vue d'analyses dans le domaine apicole ». Diplôme inter écoles Diagnostic et gestion sanitaire d'une exploitation apicole, pathologie apicole. Oniris, Nantes, France. 9 mars 2024. Cette conférence a abordé, entre autres, les méthodes d'analyses disponibles pour le diagnostic de la loque américaine et les bonnes pratiques de prélèvement pour conditionner les échantillons dans ce cadre.

Stéphanie Franco, Eric Dubois, Véronique Duquesne, Karim Sidi-Boumedine. Les interactions entre vétérinaires apicoles et les laboratoires d'analyses en infectiologie - Volet "laboratoires". Rencontres Vétérinaires Apicoles, Oniris, Oct 2024, Visio-conférence, France. Le sujet du diagnostic de la loque américaine a été entre autres abordé lors de cette conférence.

Le laboratoire a également sensibilisé les laboratoires officiels français agréés fait un point sur le diagnostic de la loque américaine lors de la réunion d'animation du réseau qui a eu lieu le 30 mai 2024.

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

1

Le laboratoire publie des informations sur la loque américaine :

- Sur la page web du laboratoire de Sophia Antipolis :

<https://www.anses.fr/fr/portails/1807/content/150751>

- Et sur le site Internet du LRUE : <https://sitesv2.anses.fr/en/minisite/abeilles/liste-actualites/news>

Le laboratoire contribue à un bulletin hebdomadaire de veille internationale sur la santé de l'Abeille. En 2024, un point d'information a été publié suite à la détection de la loque américaine sur l'île de La Réunion (jusqu'alors considérée comme indemne de cette maladie).

TOR7: SCIENTIFIC AND TECHNICAL TRAINING

17. Did your laboratory provide scientific and technical training to laboratory personnel from other WOA H 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 17025	COFRAC	1_2249_Cofrac__Notification accréditation_2024.pdf

19. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
Recherche de la loque européenne par examen bactérioscopique	COFRAC
Identification de <i>Melissococcus plutonius</i> agent de la loque européenne par PCR conventionnelle	COFRAC
Identification de <i>Melissococcus plutonius</i> agent de la loque européenne par PCR temps réel	COFRAC

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

Yes

Au sein du laboratoire, différentes mesures de biosécurité et de biosûreté sont mises en place pour gérer le risque biologique de façon générale (gestion des déchets, nettoyage/désinfection, contrôle des accès aux locaux et au système informatique, procédures techniques pour la réception des échantillons et les analyses, formation et habilitation des personnels...). En outre, des locaux distincts sont affectés aux essais immunosérologiques, à la biologie moléculaire, aux manipulations en microbiologie et à la culture des cellules saines ainsi qu'aux contaminants chimiques. Toutes ces procédures/mesures sont inscrites dans le système de management de la qualité du laboratoire.

TOR9: SCIENTIFIC MEETINGS

21. Did your laboratory organise scientific meetings related to the pathogen in question on behalf of WOA H?

No

22. Did your laboratory participate in scientific meetings related to the pathogen in question on behalf of WOA H?

Yes

			Role (speaker, presenting)	
--	--	--	----------------------------	--

Marie-Pierre Chauzat - - FRANCE

Title of event	Date	location	poster, short communications)	Title of the work presented
Réunion annuelle des laboratoires de référence OMSA sur la loque américaine	2025-08-31	Réunion dématérialisée via Teams	Présentateur	Activités du laboratoire sur la loque américaine au titre du mandat OMSA

TOR10: NETWORK WITH WOAHP REFERENCE LABORATORIES

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

Yes

24. Do you network (collaborate or share information) with other WOAHP Reference Laboratories designated for the same pathogen?

Yes

NETWORK/DISEASE	ROLE OF YOUR LABORATORY (PARTICIPANT, ORGANISER, ETC)	NO. PARTICIPANTS	PARTICIPATING WOAHP REF. LABS
EFB	Participant	5	Germany New Zealand

25. Did you organise or participate in inter-laboratory proficiency tests with WOAHP 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 WOAHP Ref. Labs/ organising WOAHP Ref Lab
Detection of Paenibacillus larvae / Melissococcus plutonius, agents of American / European foulbrood, in crushed bee larvae by: Microscopy, PCR, Culture	Organisateur	1	Organisateur OMSA (Test d'aptitude organisé fin 2023 et rapport fourni en avril 2024)

26. Did your laboratory collaborate with other WOAHP 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 WOAHP Reference Laboratories for the same pathogen during the past 2 years?

Yes

Purpose for inter-laboratory test comparisons ¹	Role of your reference laboratory (organizer/participant)	No. participating laboratories	Name of the test	WOAHP Member Countries
--	---	--------------------------------	------------------	------------------------

Detection of

AUSTRIA, BELGIUM,
BULGARIA, CROATIA,

Marie-Pierre Chauzat - - FRANCE

Paenibacillus larvae / Melissococcus plutonius, agents of American / European foulbrood, in crushed bee larvae by: Microscopy, PCR, Culture	Organisateur OMSA (Test d'aptitude organisé fin 2023 et rapport fourni en avril 2024)	23	EFB ILPT	CZECH REPUBLIC, ESTONIA, FINLAND, GERMANY, GREECE, HUNGARY, IRELAND, ITALY, KOSOVO, LATVIA, NORWAY, POLAND, ROMANIA, SLOVAKIA, SLOVENIA, SWEDEN, SWITZERLAND, THE NETHERLANDS,
--	--	----	----------	--

TOR12: EXPERT CONSULTANTS

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

No

29. Additional comments regarding your report:

No

L'activité reste modérée en 2024. Les demandes sont toujours ponctuelles.

The Anses Sophia Antipolis laboratory has been working for several years on the development and validation of quality diagnostic methods for the detection and/or identification of American and European foulbrood agents.

Most of the methods used by Anses Sophia Antipolis derive from those described in the Manual of diagnostic tests and vaccines for terrestrial animals. WHOA Member States have easy access to the Manual and often demonstrate that they are autonomous in their uses. In addition, for both diseases, the clinical characteristics and diagnostic approaches are well-documented; or even quite well known; and the diagnostic methods are easy to implement. As a result, the Anses Sophia Antipolis laboratory remains very little requested in terms of diagnostics at the international level.

Most often, the questions we receive concern details of the implementation of methods but mainly relate to the supply of reference materials (MRs), organization of proficiency tests (PTs) and sometimes provision of training. The latter topics are subject to a number of administrative and budgetary constraints. Indeed, apart from sending DNAs, sending MRs for microscopy and/or culture diagnosis; or for the participation in PTs require obtaining pathogen import permits and shipping under UN3373 conditions. These formalities are time consuming and most of the time the cost can be prohibitive, including for certain European countries. Concerning training requests, the question of financing those remains relevant.

Consequently, the interactions that Anses Sophia Antipolis may have with the requesting laboratories are found to be limited only to exchanges and/or discussions on the pathogens or the methods used by email or Visio call.