

**EUROPEAN AND MEDITERRANEAN PLANT PROTECTION ORGANIZATION
ORGANISATION EUROPEENNE ET MEDITERRANEENNE POUR LA PROTECTION DES PLANTES
Summary sheet of validation data for a diagnostic test**

The EPPO Standard PM 7/98 *Specific requirements for laboratories preparing accreditation for a plant pest diagnostic activity* describes how validation should be conducted. It also includes definitions of performance criteria.

Laboratory contact details	Institute for Sustainable Plant Protection via Amendola, 122/D, 70126 Bari, Italy
Short description of the test	Detection of <i>Xylella fastidiosa</i> in perennial host species by LAMP-PCR
Date, reference of the validation report	2015-07-01 - Maria Saponari, Giuliana Loconsole, Oriana Potere, Donato Boscia, 2015. DETECTION OF XYLELLA FASTIDIOSA, INTERLABORATORY VALIDATION - MOLECULAR AND SEROLOGICAL METHODS
Validation process according to EPPO Standard PM7/98?	no
Is the lab accredited for this test?	yes
Was the validated data generated in the framework of a project?	
If yes, please specify	
Description of the test	
Organism(s)	<i>Xylella fastidiosa</i> (XYLEFA)
Detection / identification	detection
Matrix(ces) tested	Leaves leaf petioles
Plant species tested	<i>Nerium oleander</i> , <i>Olea europaea</i>
Method(s)	Extraction Molecular LAMP
Method: Extraction	
Reference of the test description	
As or adapted from an EPPO diagnostic protocol	
New test being considered for inclusion in the next version of the EPPO diagnostic protocol?	
As or adapted from an IPPC diagnostic protocol	
Is the test modified compared to the reference test	
Other information	

Other details on the test	- T. YASEEN, S. DRAGO, F. VALENTINI, T. ELBEAINO, G. STAMPONE, M. DIGIARO and A.M. D'ONGHIA. Onsite detection of Xylella fastidiosa in host plants and in "spy insects" using the real-time loopmediated isothermal amplification method, 2015. Phytopathologia Mediterranea 54: 488–496. - manufacturer instructions provided by Enbiotech s.r.l. - Maria Saponari, Giuliana Loconsole, Oriana Potere, Donato Boscia, 2015. DETECTION OF XYLELLA FASTIDIOSA, INTERLABORATORY VALIDATION - MOLECULAR AND SEROLOGICAL METHODS.
Method: Molecular LAMP	
Reference of the test description	
As or adapted from an EPPO diagnostic protocol	
New test being considered for inclusion in the next version of the EPPO diagnostic protocol?	
As or adapted from an IPPC diagnostic protocol	
Is the test modified compared to the reference test	
Kit	
Is a kit used	
Other information	
Reaction type	
Other details on the test	- T. YASEEN, S. DRAGO, F. VALENTINI, T. ELBEAINO, G. STAMPONE, M. DIGIARO and A.M. D'ONGHIA. Onsite detection of Xylella fastidiosa in host plants and in "spy insects" using the real-time loopmediated isothermal amplification method, 2015. Phytopathologia Mediterranea 54: 488–496. - manufacturer instructions provided by Enbiotech s.r.l. - Maria Saponari, Giuliana Loconsole, Oriana Potere, Donato Boscia, 2015. DETECTION OF XYLELLA FASTIDIOSA, INTERLABORATORY VALIDATION - MOLECULAR AND SEROLOGICAL METHODS
Are the performance characteristics included in the EPPO diagnostic protocol?	no
Performance Criteria :	
Organism 1.:	Xylella fastidiosa(XYLEFA)
Analytical sensitivity	
What is smallest amount of target that can be detected reliably?	up to 10 ² cfu/ml using dilutions ranging from 10 ⁷ to 10 CFU/ml, prepared by adding to the extraction buffer the proper aliquots of bacterial suspension after the incubation with a piece of healthy olive stem.
Diagnostic sensitivity	

Proportion of infected/infested samples tested positive compared to results from the standard test, see appendix 2 of PM 7/98	100%
Standard test(s)	33 obtained positive samples/ 33 expected positive samples
Analytical specificity - inclusivity	
Number of strains/populations of target organisms tested	
Specificity value	
Analytical specificity - exclusivity	
Number of non-target organisms tested	
Specificity value	
Cross reacts with	
Diagnostic Specificity	
Proportion of uninfected/uninfested samples (true negatives) testing negative compared to results from a standard test	100%
Specify the test(s)	27 obtained negative samples/ 27 expected negative samples
Reproducibility	
Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	100%
Repeatability	
Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	100%
Test performance study	
Test performance study?	no
Brief details of the test performance study and its output. If available, link to published article/report	
Other information	
Any other information considered useful	Validation of the Lamp-PCR assay was carried out by the Laboratories listed below, under the supervision of the reference laboratory CNR-UNIBA. <ul style="list-style-type: none"> • IPSP-CNR: Istituto per la Protezione Sostenibile delle Piante CNR, UOS Bari, (Italy); • DiSSPA-UNIBA: Dipartimento di Scienze del Suolo, della Pianta e degli Alimenti, Università degli Studi Aldo Moro, Bari (Italy); • CRSFA: Centro di Ricerca, Sperimentazione e Formazione in Agricoltura Basile Caramia, Locorotondo (BA) (Italy); • IAMB: Istituto Agronomico Mediterraneo, Valenzano (BA) (Italy); • Enblotech s.r.l. (PA) which provided the kit and the manufacturer instructions

The following complementary files are available online:

- [protocols for diagnosis of Xylella fastidiosa](#)
- [Report interlaboratory validation 2015](#)

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