

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	Bacteriology. Instituto Valenciano de Investigaciones Agrarias CV-315, km. 10.7, 46113 Moncada, Spain
Short description of the test	Evaluation of molecular methods for the detection of <i>Xylella fastidiosa</i>
Date, reference of the validation report	2021-03-08 - EU-XF-IC-2020-03
Validation process according to EPPO Standard PM7/98?	yes
Is the lab accredited for this test?	no
Was the validated data generated in the framework of a project?	Other_project
If yes, please specify	XF-ACTORS
Description of the test	
Organism(s)	<i>Xylella fastidiosa</i> (XYLEFA)
Detection / identification	detection
Matrix(ces) tested	Other Crude sap of plants and specimens of <i>Philaenus spumarius</i> macerated in extraction buffer
Plant species tested	<i>Polygala myrtifolia</i>
Method(s)	Molecular Extraction DNA RNA Molecular real time PCR
Method: Molecular Extraction DNA RNA	
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	

Other details on the test	
Method: Molecular real time PCR	
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	
Other details on the test	
Are the performance characteristics included in the EPPO diagnostic protocol?	
Performance Criteria :	
Organism 1.:	Xylella fastidiosa(XYLEFA)
Analytical sensitivity	
What is smallest amount of target that can be detected reliably?	
Diagnostic sensitivity	
Proportion of infected/infested samples tested positive compared to results from the standard test, see appendix 2 of PM 7/98	
Standard test(s)	
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	
Specify the test(s)	
Reproducibility	

Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	
Repeatability	
Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	
Test performance study	
Test performance study?	yes
Brief details of the test performance study and its output. It available, link to published article/report	This interlaboratory comparison was developed for the identification of <i>X. fastidiosa</i> in plants and insects by comparing different procedures of DNA extractions followed by qPCR using the primers/TaqMan probe described by Harper et al. (2010), and had two main scopes: - A test performance study (TPS) to assess the performance of a fully automatized DNA extraction protocol by Promega (Maxwell® RSC PureFood GMO and Authentication Kit AS1600 - based on magnetic beads and without chloroform treatment) in comparison with the procedures previously validated (CTAB and Modified DNeasy Mericon™ Food Standard Protocol - Qiagen) and described in the EPPO diagnostic standard 7/24 (4). The TPS was performed on plant and insect samples. - A laboratory proficiency test (PT) to assess the efficiency of different laboratories performing molecular detection of <i>X. fastidiosa</i> .
Other information	
Any other information considered useful	
The following complementary files are available online:	<ul style="list-style-type: none"> • Evaluation of molecular methods for the detection of <i>Xylella fastidiosa</i>

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