## 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 Xylella fastidiosa in composite samples of herbaceous hosts	
Date, reference of the validation report	2019-03-13 - 2019-03-13 Implementation of sampling procedures for testing composite samples for Xylella fastidiosa. POnTE - XF-ACTORS, 2nd Joint Annual Meeting: European Research on Emerging Plant Diseases. Valencia, 23-26 october 2018. Book of abstract: p. 63.	
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?		
Description of the test		
Organism(s)	Xylella fastidiosa (XYLEFA)	
Detection / identification	detection	
Method(s)	Extraction Molecular Extraction DNA RNA Molecular Extraction DNA RNA (2) Molecular Extraction DNA RNA (3) Molecular real time PCR	
Method: Extraction		
Reference of the test description		
Other information		
Other details on the test	The preparation of the samples of polygala is different from the description reported in the EPPO DP. W	
Method: Molecular Extraction DNA RNA		
Reference of the test description		
As or adapted from an EPPO diagnostic protocol	yes	
EPPO Diagnostic Protocol name	PM 7/024 Xylella fastidiosa (version 4)	
Kit		

Is a kit used  Other information  Other details on the test  Method: Molecular Extraction DNA RNA (2)  Reference of the test description  As or adapted from an EPPO diagnostic protocol  Method: Molecular Extraction DNA RNA (2)  Reference of the test description  As or adapted from an EPPO diagnostic protocol name  With Is a kit used  Manufacturer name  QIAGEN  Specify the kit used  Other information  Method: Molecular Extraction DNA RNA (3)  Reference of the test description  As or adapted from an EPPO diagnostic protocol  As or adapted from an IPPC diagnostic protocol  As a dapted from an IPPC diagnostic protocol  Kit used  Manufacturer name  PROMEGA  Specify the kit used  Maxwell® RSC PureFood GMO and Authentication kit  Kit used following the manufacturer's instructions?  Other information  Method: Molecular eal time PCR  Reference of the test description  As or adapted from an EPPO diagnostic protocol  Wethod: Molecular eal time PCR  Reference of the test description  As or adapted from an EPPO diagnostic protocol  Specify the kit used  Maxwell® RSC PureFood GMO and Authentication kit  Kit used following the manufacturer's instructions?  Other information  Method: Molecular real time PCR  Reference of the test description  As or adapted from an EPPO diagnostic protocol specific prot			
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5 - Realtime PCR (Harper et al.,2010; erratum	Other information		
2023/ 1111 17/21 (3/	Other details on the test		

Performance Criteria :		
Organism 1.:	Xylella fastidiosa(XYLEFA)	
Analytical sensitivity		
What is smallest amount of target that can be detected reliably?	One stem portion of 1,5-2 cm excised from an infected plant of periwinkle, in 40 gr of 1,5-2 cm stem portions of tomato plants	
Diagnostic sensitivity		
Proportion of infected/infested samples tested positive compared to results from the standard test, see appendix 2 of PM 7/98	100% using all the 3 tests reported for the DNA extraction.	
Standard test(s)	Standard tests reported in appendix 3 and 5 of PM 7/24 (3)	
Diagnostic Specificity		
Proportion of uninfected/uninfested samples (true negatives) testing negative compared to results from a standard test	100% using all the 3 tests reported for the DNA extraction.	
Specify the test(s)	Standard tests reported in appendix 3 and 5 of PM 7/24 (3)	
Repeatability		
Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	100% using all the 3 tests reported for the DNA extraction.	
Test performance study		
Test performance study?	no	
Other information		
Any other information considered useful	These validation data were obtained by IPSP-CNR in collaboration with the Department of Soil, Plant and Food Science of the University of Bari (ITAY). For any additional detail, see the attached file.	
The following complementary files are available online:	<ul> <li>composite samples of herbaceous plants (tomato)</li> </ul>	

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