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	Anses Plant Health Laboratory - Nematology Unit Domaine de la Motte au Viconte BP 35327, 35653 Le Rheu, France
Short description of the test	Detection of Bursaphelenchus xylophilus in wood extract with real-time PCR François et al. 2007
Date, reference of the validation report	2011-02-01 - Anses 2011 Rapport d'évaluation d'outils moléculaires de détection de Bursaphelenchus xylophilus sur extrait de bois
Validation process according to EPPO Standard PM7/98?	yes
Is the lab accredited for this test?	yes
Was the validated data generated in the framework of a project?	no
Description of the test	
Organism(s)	Bursaphelenchus xylophilus(BURSXY)
Detection / identification	detection
Method(s)	Molecular real time PCR
Method: Molecular real time PCR	
Reference of the test description	
As or adapted from an EPPO diagnostic protocol	no
As or adapted from an IPPC diagnostic protocol	no
Reference of the test	François C, Castagnone C, Boonham N, Tomlinson J, Lawson R, Hockland S, Quill J, Vieira P, Mota M, Castagnone-Sereno P (2007) Satellite DNA-based species-specific identification of the pinewood nematode, Bursaphelenchus xylophilus. Molecular Plant Pathology 8(6), 803-809
Other information	
Reaction type	Probe
Other details on the test	real time PCR (Taqman)
Performance Criteria :	
Organism 1.:	Bursaphelenchus xylophilus(BURSXY)

Analytical sensitivity		
What is smallest amount of target that can be detected reliably?	1 individual	
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)	morphology	
Analytical specificity - inclusivity		
Number of strains/populations of target organisms tested	7 populations (see table1)	
Specificity value	100%	
Analytical specificity - exclusivity		
Number of non-target organisms tested	15 populations (see table1)	
Specificity value	100% - no cross reaction	
Diagnostic Specificity		
Proportion of uninfected/uninfested samples (true negatives) testing negative compared to results from a standard test	100% for one individual	
Specify the test(s)	morphology	
Reproducibility		
Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	100% for one individual	
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	
Other information		
Any other information considered useful	The full report is available upon request to the laboratory. French version only	
The following complementary files are available online:	 <u>Table 1 List of species and population</u> <u>tested</u> 	

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