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 Leal et al. 2005
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?	no
Was the validated data generated in the framework of a project?	
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	Leal I, Green M, Allen E, Humble L, Rott M (2005) An effective PCR-based diagnostic method for the detection of Bursaphelenchus xylophilus in wood samples from lodgepole pine. Nematology Vol.7(6), 833-842
Other information	
Reaction type	Probe
Performance Criteria :	
Organism 1.:	**Bursaphelenchus xylophilus(BURSXY)**
<u>Analytical sensitivity</u>	

What is smallest amount of target that can be detected reliably?	one nematode
Diagnostic sensitivity	
Proportion of infected/infested samples tested positive compared to results from the standard test, see appendix 2 of PM 7/98	1
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 reactions
Diagnostic Specificity	
Proportion of uninfected/uninfested samples (true negatives) testing negative compared to results from a standard test	99% (6 false positives results/490 uninfested samples and 1 false negative result /13 infested samples)
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 single nematode
Repeatability	
Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	100% for one single nematode
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:	• Table 1 List of species and population tested • Table 2_comparison of different PCR tests B xylophilus identification

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