

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	Specific PCR Leal et al. 2005
Date, reference of the validation report	2011-05-01 - Evaluation d'outils moléculaires d'identification de Bursaphelenchus xylophilus sur individus isolés
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?	no
If yes, please specify	
Description of the test	
Organism(s)	Bursaphelenchus xylophilus(BURSXY)
Detection / identification	identification
Matrix(ces) tested	Specimen Nematodes
Plant species tested	
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
New test being considered for inclusion in the next version of the EPPO diagnostic protocol?	
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
Is the test modified compared to the reference test	

Kit	
Is a kit used	
Other information	
Reaction type	
Other details on the test	
Are the performance characteristics included in the EPPO diagnostic protocol?	
Performance Criteria :	
Organism 1.:	Bursaphelenchus xylophilus(BURSXY)
Analytical sensitivity	
What is smallest amount of target that can be detected reliably?	5 nematodes
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	7 populations (see table1)
Specificity value	94.9 %
Analytical specificity - exclusivity	
Number of non-target organisms tested	15 populations (see table1)
Specificity value	Cross reacts with some populations of B. mucronatus
Cross reacts with	Bursaphelenchus mucronatus
Diagnostic Specificity	
Proportion of uninfected/uninfested samples (true negatives) testing negative compared to results from a standard test	Not performed
Specify the test(s)	Not relevant
Reproducibility	
Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	100% for 5 nematodes
Repeatability	
Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	100% for 5 nematodes
Test performance study	
Test performance study?	no
Brief details of the test performance study	

and its output.It available, link to published article/report	
Other information	
Any other information considered useful	See table 2. The full report is available upon request to the laboratory. French version only
The following complementary files are available online:	
	<ul style="list-style-type: none"> • Table 1 Specificity_PCR • Table 2_comparison of different PCR tests B xylophilus identification

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