

**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.

<b>Laboratory contact details</b>	Anses Plant Health Laboratory - Nematology Unit Domaine de la Motte au Viconte BP 35327, 35653 Le Rheu, France
<b>Short description of the test</b>	Detection of <i>Bursaphelenchus xylophilus</i> in wood extract with real-time PCR Leal et al. 2005
<b>Date, reference of the validation report</b>	2011-02-01 - Anses 2011 Rapport d'évaluation d'outils moléculaires de détection de <i>Bursaphelenchus xylophilus</i> sur extrait de bois
<b>Validation process according to EPPO Standard PM7/98?</b>	yes
<b>Is the lab accredited for this test?</b>	no
<b>Was the validated data generated in the framework of a project?</b>	
<b>Description of the test</b>	
<b>Organism(s)</b>	<i>Bursaphelenchus xylophilus</i> (BURSXY)
<b>Detection / identification</b>	detection
<b>Matrix(ces) tested</b>	Wood extract
<b>Method(s)</b>	Molecular real time PCR
<b>Method: Molecular real time PCR</b>	
<b>Reference of the test description</b>	
<b>As or adapted from an EPPO diagnostic protocol</b>	no
<b>As or adapted from an IPPC diagnostic protocol</b>	no
<b>Reference of the test</b>	Leal I, Green M, Allen E, Humble L, Rott M (2005) An effective PCR-based diagnostic method for the detection of <i>Bursaphelenchus xylophilus</i> in wood samples from lodgepole pine. <i>Nematology</i> Vol.7(6), 833-842
<b>Other information</b>	
<b>Reaction type</b>	Probe
<b>Performance Criteria :</b>	
<b>Organism 1.:</b>	<b><i>Bursaphelenchus xylophilus</i>(BURSXY)</b>

<b>Analytical sensitivity</b>	
<b>What is the smallest amount of target that can be detected reliably?</b>	one nematode
<b>Diagnostic sensitivity</b>	
<b>Proportion of infected/infested samples tested positive compared to results from the standard test, see appendix 2 of PM 7/98</b>	1
<b>Standard test(s)</b>	morphology
<b>Analytical specificity - inclusivity</b>	
<b>Number of strains/populations of target organisms tested</b>	7 populations (see table1)
<b>Specificity value</b>	100%
<b>Analytical specificity - exclusivity</b>	
<b>Number of non-target organisms tested</b>	15 populations (see table1)
<b>Specificity value</b>	100% - no cross reactions
<b>Diagnostic Specificity</b>	
<b>Proportion of uninfected/uninfested samples (true negatives) testing negative compared to results from a standard test</b>	99% (6 false positives results/490 uninfested samples and 1 false negative result /13 infested samples)
<b>Specify the test(s)</b>	morphology
<b>Reproducibility</b>	
<b>Provide the calculated % of agreement for a given level of the pest (see PM 7/98)</b>	100% for one single nematode
<b>Repeatability</b>	
<b>Provide the calculated % of agreement for a given level of the pest (see PM 7/98)</b>	100% for one single nematode
<b>Test performance study</b>	
<b>Test performance study?</b>	no
<b>Other information</b>	
<b>Any other information considered useful</b>	The full report is available upon request to the laboratory. French version only
<b>The following complementary files are available online:</b>	<ul style="list-style-type: none"> <li>• <a href="#">Table 1 List of species and population tested</a></li> <li>• <a href="#">Table 2_comparison of different PCR tests B xylophilus identification</a></li> </ul>

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