

**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>	Identification of <i>Bursaphelenchus xylophilus</i> by specific PCR Castagnone et al. 2005
<b>Date, reference of the validation report</b>	2011-05-01 - Evaluation d'outils moléculaires d'identification de <i>Bursaphelenchus xylophilus</i> sur individus isolés
<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>Method(s)</b>	Molecular Conventional PCR
<b>Method: Molecular Conventional PCR</b>	
<b>Reference of the test description</b>	
<b>As or adapted from an EPPO diagnostic protocol</b>	yes
<b>EPPO Diagnostic Protocol name</b>	PM 7/004 <i>Bursaphelenchus xylophilus</i> (version 3)
<b>Name of the test</b>	Satellite DNA-based PCR technique (Castagnone et al., 2005)
<b>As or adapted from an IPPC diagnostic protocol</b>	no
<b>Is the test modified compared to the reference test</b>	no
<b>Other information</b>	
<b>Other details on the test</b>	satellite DNA species specific PCR
<b>Performance Criteria :</b>	
<b>Organism 1.:</b>	<b><i>Bursaphelenchus xylophilus</i>(BURSXY)</b>
<b>Analytical sensitivity</b>	

<b>What is smallest amount of target that can be detected reliably?</b>	2-5 nematods
<b><u>Diagnostic sensitivity</u></b>	
<b>Proportion of infected/infested samples tested positive compared to results from the standard test, see appendix 2 of PM 7/98</b>	Not performed
<b>Standard test(s)</b>	Not relevant
<b><u>Analytical specificity - inclusivity</u></b>	
<b>Number of strains/populations of target organisms tested</b>	7 populations (see table1)
<b>Specificity value</b>	100%
<b><u>Analytical specificity - exclusivity</u></b>	
<b>Number of non-target organisms tested</b>	15 populations (see table1)
<b>Specificity value</b>	100% - no cross reaction
<b><u>Diagnostic Specificity</u></b>	
<b>Proportion of uninfected/uninfested samples (true negatives) testing negative compared to results from a standard test</b>	Not performed
<b>Specify the test(s)</b>	Not relevant
<b><u>Reproducibility</u></b>	
<b>Provide the calculated % of agreement for a given level of the pest (see PM 7/98)</b>	95.8% for 2 nematodes 100% for 5 nematodes
<b><u>Repeatability</u></b>	
<b>Provide the calculated % of agreement for a given level of the pest (see PM 7/98)</b>	100%
<b><u>Test performance study</u></b>	
<b>Test performance study?</b>	no
<b><u>Other information</u></b>	
<b>Any other information considered useful</b>	See table 2. 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 Specificity_PCR</a></li> <li>• <a href="#">Table 2 comparison of different PCR tests B xylophilus identification</a></li> </ul>

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