

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	Identification of Bursaphelenchus xylophilus by specifc PCR Castagnone 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?	
Description of the test	
Organism(s)	Bursaphelenchus xylophilus(BURSXY)
Detection / identification	detection
Method(s)	Molecular Conventional PCR
Method: Molecular Conventional PCR	
Reference of the test description	
As or adapted from an EPPO diagnostic protocol	yes
EPPO Diagnostic Protocol name	PM 7/004 Bursaphelenchus xylophilus (version 3)
Name of the test	Satellite DNA-based PCR technique (Castagnone et al., 2005)
As or adapted from an IPPC diagnostic protocol	no
Is the test modified compared to the reference test	no
Other information	
Other details on the test	satellite DNA species specific PCR
Performance Criteria :	
Organism 1.:	Bursaphelenchus xylophilus(BURSXY)
Analytical sensitivity	

What is smallest amount of target that can be detected reliably?	2-5 nematods
<u>Diagnostic sensitivity</u>	
Proportion of infected/infested samples tested positive compared to results from the standard test, see appendix 2 of PM 7/98	Not performed
Standard test(s)	Not relevant
<u>Analytical specificity - inclusivity</u>	
Number of strains/populations of target organisms tested	7 populations (see table1)
Specificity value	100%
<u>Analytical specificity - exclusivity</u>	
Number of non-target organisms tested	15 populations (see table1)
Specificity value	100% - no cross reaction
<u>Diagnostic Specificity</u>	
Proportion of uninfected/uninfested samples (true negatives) testing negative compared to results from a standard test	Not performed
Specify the test(s)	Not relevant
<u>Reproducibility</u>	
Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	95.8% for 2 nematodes 100% for 5 nematodes
<u>Repeatability</u>	
Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	100%
<u>Test performance study</u>	
Test performance study?	no
<u>Other information</u>	
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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