

**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>	ILVO Institute for Agricultural and Fisheries Research Burg. Van Gansberghelaan 96, 9820 Merelbeke, Belgium
<b>Short description of the test</b>	Detection of <i>Phytophthora kernoviae</i> by plating infected plant material and morfological evaluation the culture
<b>Date, reference of the validation report</b>	2009-12-21 - F16_S09
<b>Validation process according to EPPO Standard PM7/98?</b>	yes
<b>Is the lab accredited for this test?</b>	yes
<b>Was the validated data generated in the framework of a project?</b>	
<b>Description of the test</b>	
<b>Organism(s)</b>	<i>Phytophthora kernoviae</i> (PHYTKE)
<b>Detection / identification</b>	detection
<b>Method(s)</b>	Isolation Morphological
<b>Method: Isolation</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 7/112 <i>Phytophthora kernoviae</i> (version 1)
<b>Name of the test</b>	Isolation on P5ARP [H] (Jeffers & Martin, 1986)
<b>Is the test modified compared to the reference test</b>	yes slight modification to the semi-selective isolation medium
<b>Other information</b>	
<b>Method: Morphological</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 7/112 <i>Phytophthora kernoviae</i> (version 1)

<b>Name of the test</b>	Morphological identification P5ARP [H]
<b>Other information</b>	
<b>Other details on the test</b>	Morphological identification using a microscope and a checklist (F03_S10) containing the most distinctive morphological characteristics of the organism as described in Brasier et al. (2005) Brasier C. , Beales P., Kirk S., Denman S. & Rose J. (2005). <i>Phytophthora kernoviae</i> sp. nov., an invasive pathogen causing bleeding stem lesions on forest trees and foliar necrosis of ornamentals in the UK. <i>Mycological Research</i> 109 (8): 853-859.
<b>Are the performance characteristics included in the EPPO diagnostic protocol?</b>	<b>no</b>
<b>Performance Criteria :</b>	
<b>Organism 1.:</b>	<b>Phytophthora kernoviae(PHYTKE)</b>
<b>Analytical sensitivity</b>	
<b>What is smallest amount of target that can be detected reliably?</b>	Two plated pieces of freshly infected leaf material out of 20 plated pieces
<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>	100%. All samples that were analysed with real-time PCR gave identical results, i.e. there were no false negatives
<b>Standard test(s)</b>	Real-time PCR
<b>Analytical specificity - inclusivity</b>	
<b>Number of strains/populations of target organisms tested</b>	1
<b>Specificity value</b>	
<b>Analytical specificity - exclusivity</b>	
<b>Number of non-target organisms tested</b>	5 ( <i>Phytophthora multivora</i> , <i>P. ramorum</i> , <i>P. hedraïandra</i> , <i>P. syringae</i> , <i>P. lateralis</i> )
<b>Specificity value</b>	none known
<b>Diagnostic Specificity</b>	
<b>Proportion of uninfected/uninfested samples (true negatives) testing negative compared to results from a standard test</b>	100%. All samples that were analysed with real-time PCR gave identical results, i.e. there were no false positives
<b>Specify the test(s)</b>	Real-time PCR
<b>Reproducibility</b>	
<b>Provide the calculated % of agreement for a given level of the pest (see PM 7/98)</b>	100%
<b>Repeatability</b>	
<b>Provide the calculated % of agreement for a given level of the pest (see PM 7/98)</b>	100%
<b>Test performance study</b>	

<b>Test performance study?</b>	no
<b>Other information</b>	
<b>Any other information considered useful</b>	Robustness has also been established. Participated in FAPAS proficiency testing scheme and in interlaboratory comparisons.

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