

EUROPEAN AND MEDITERRANEAN PLANT PROTECTION ORGANIZATION
ORGANISATION EUROPEENNE ET MEDITERRANEENNE POUR LA PROTECTION DES PLANTES
(11-17239)

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	ILVO Institute for Agricultural and Fisheries Research Burg. Van Gansberghelaan 96, 9820 Merelbeke, Belgium
Short description of the test	Detection of Meloidogyne sp. by extraction with automated zonal centrifuge (AZC) from soil and potato tubers, followed by microscopy
Date, reference of the validation report	2008-12-31 - (166- id-lab: 59) F16_N01
Validation process according to EPPO Standard PM7/98?	yes
Is the lab accredited for this test?	yes
Was the validated data generated in the framework of a project?	
Detection / identification	detection and identification
Matrix(ces) tested	Soil, Tubers soil (different types), potato tubers
Plant species tested	
Description of the test	
Method: Extraction - Method for extraction/isolation/baiting of target organism from matrix (except nucleic acid extraction)	
Reference of the test description	
As or adapted from an EPPO diagnostic protocol	yes
EPPO Diagnostic Protocol name	PM 7/119 Nematode extraction
Name of the test	Centrifugal flotation (from soil)
As or adapted from an IPPC diagnostic protocol	
Is the test modified compared to the reference test	no
Other information	
Other details on the test	Extraction with automated zonal centrifuge (AZC)
Method: Morphological - Morphological and morphometrical methods intended for identification	
Reference of the test description	
As or adapted from an EPPO diagnostic protocol	yes

EPPO Diagnostic Protocol name	PM 7/041 Meloidogyne chitwoodi and M. fallax
Name of the test	Morphological identification
As or adapted from an IPPC diagnostic protocol	
Is the test modified compared to the reference test	no
Other information	
Other details on the test	microscopy
Are the performance characteristics included in the EPPO diagnostic protocol?	no
Performance Criteria :	
Organism 1.:	Meloidogyne sp.(MELGSP)
Analytical sensitivity	
What is smallest amount of target that can be detected reliably?	<5 targets: 30% detection; 5-9 targets: 70% detection; >10 targets: 100% detection
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	
Specificity value	
Analytical specificity - exclusivity	
Number of non-target organisms tested	
Specificity value	
Cross reacts with	
Diagnostic Specificity	
Proportion of uninfected/uninfested samples (true negatives) testing negative compared to results from a standard test	
Specify the test(s)	
Reproducibility	
Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	100% for all levels
Repeatability	
Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	>5 targets: 100%
Organism 2.:	Meloidogyne chitwoodi(MELGCH)
Analytical sensitivity	

What is smallest amount of target that can be detected reliably?	
<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	
Standard test(s)	
<u>Analytical specificity - inclusivity</u>	
Number of strains/populations of target organisms tested	
Specificity value	
<u>Analytical specificity - exclusivity</u>	
Number of non-target organisms tested	
Specificity value	
Cross reacts with	
<u>Diagnostic Specificity</u>	
Proportion of uninfected/uninfested samples (true negatives) testing negative compared to results from a standard test	
Specify the test(s)	
<u>Reproducibility</u>	
Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	
<u>Repeatability</u>	
Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	
Organism 3.:	Meloidogyne fallax(MELGFA)
<u>Analytical sensitivity</u>	
What is smallest amount of target that can be detected reliably?	
<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	
Standard test(s)	
<u>Analytical specificity - inclusivity</u>	
Number of strains/populations of target organisms tested	
Specificity value	
<u>Analytical specificity - exclusivity</u>	
Number of non-target organisms tested	

Specificity value	
Cross reacts with	
Diagnostic Specificity	
Proportion of uninfected/uninfested samples (true negatives) testing negative compared to results from a standard test	
Specify the test(s)	
Reproducibility	
Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	
Repeatability	
Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	
Test performance study	
Test performance study?	no
Brief details of the test performance study and its output. If available, link to published article/report	
Other information	
Any other information considered useful	method valid for different soil types