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 Meloidogyne chitwoodi and M. fallax by SCAR PCR
Date, reference of the validation report	2010-01-01 - validation report september 2010
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?	
Description of the test	
Organism(s)	Meloidogyne chitwoodi (MELGCH) Meloidogyne fallax (MELGFA)
Detection / identification	identification
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 7/041 Meloidogyne chitwoodi and M. fallax (version 2)
Name of the test	PCR Zijlstra et al. 2000
As or adapted from an IPPC diagnostic protocol	no
Other information	
Other details on the test	species specific SCAR PCR (multiplex PCR; i.e one primer set for each species)
Are the performance characteristics included in the EPPO diagnostic protocol?	**yes**
Performance Criteria :	
Organism 1.:	**Meloidogyne chitwoodi(MELGCH)**
Analytical sensitivity	

What is smallest amount of target that can be detected reliably?	2 J2 for M. chitwoodi
Analytical specificity - inclusivity	
Number of strains/populations of target organisms tested	4 for M. chitwoodi (for details see annex 1 from validation report)
Specificity value	100% for M. chitwoodi
Analytical specificity - exclusivity	
Number of non-target organisms tested	31 nematodes populations (for details see neex1 from validation report)
Specificity value	100% for M. chitwoodi - no cross reaction
Reproducibility	
Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	83% (2 J2), 100% (5 J2) for M. chitwoodi
Repeatability	
Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	62% (2 J2), 100% (5 J2) for M. chitwoodi
Organism 2.:	**Meloidogyne fallax(MELGFA)**
Analytical sensitivity	
What is smallest amount of target that can be detected reliably?	1 J2 for M. fallax
Analytical specificity - inclusivity	
Number of strains/populations of target organisms tested	2 for M. fallax (for details see annex 1 from validation report)
Specificity value	100% for M. fallax
Analytical specificity - exclusivity	
Number of non-target organisms tested	31 nematodes populations (for details see neex1 from validation report)
Specificity value	100% for M. fallax - no cross reaction
Reproducibility	
Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	91% (1 J2), 100% (2 J2) for M. fallax
Repeatability	
Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	75% (1 J2), 100% (2 J2) for M. fallax
Test performance study	
Test performance study?	no
Other information	
Any other information considered useful	The full report is available upon request to the laboratory.

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