

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

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

