

**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>	Detection of <i>Meloidogyne chitwoodi</i> and <i>M. fallax</i> by PCR RFLP
<b>Date, reference of the validation report</b>	2010-09-01 - 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 fallax</i> (MELGFA) <i>Meloidogyne chitwoodi</i> (MELGCH)
<b>Detection / identification</b>	detection
<b>Method(s)</b>	Molecular PCR-RFLP
<b>Method: Molecular PCR-RFLP</b>	
<b>Reference of the test description</b>	
<b>As or adapted from an EPPO diagnostic protocol</b>	no
<b>As or adapted from an IPPC diagnostic protocol</b>	no
<b>Reference of the test</b>	Zijlstra et al. (1995). Differences between ITS regions of isolates of root-knot nematodes <i>Meloidogyne hapla</i> and <i>M. chitwoodi</i> . <i>Phytopathology</i> 85, 1231-1237. Not included in PM7/41 (Zijlstra et al. 1997 included)
<b>Other information</b>	
<b>Are the performance characteristics included in the EPPO diagnostic protocol?</b>	no
<b>Performance Criteria :</b>	
<b>Organism 1.:</b>	<b><i>Meloidogyne fallax</i>(MELGFA)</b>
<b>Analytical sensitivity</b>	

<b>What is 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>	1 population for M. fallax (for details see annex 1 of validation report)
<b>Specificity value</b>	100% for M. fallax
<b>Analytical specificity - exclusivity</b>	
<b>Number of non-target organisms tested</b>	29 nematodes populations (see Annex 1 of validation report)
<b>Specificity value</b>	100% - no cross reaction
<b>Reproducibility</b>	
<b>Provide the calculated % of agreement for a given level of the pest (see PM 7/98)</b>	87% for 1 J2 and 100% for 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>	50% for 1 J2 and 100% for 2 J2 for M. fallax;
<b>Organism 2.:</b>	<b>Meloidogyne chitwoodi(MELGCH)</b>
<b>Analytical sensitivity</b>	
<b>What is smallest amount of target that can be detected reliably?</b>	1 J2 for M. chitwoodi
<b>Analytical specificity - inclusivity</b>	
<b>Number of strains/populations of target organisms tested</b>	4 populations for M. chitwoodi (for details see annex 1 of validation report)
<b>Specificity value</b>	100% for M. chitwoodi
<b>Analytical specificity - exclusivity</b>	
<b>Number of non-target organisms tested</b>	29 nematodes populations (see Annex 1 of validation report)
<b>Specificity value</b>	100% - no cross reactions
<b>Reproducibility</b>	
<b>Provide the calculated % of agreement for a given level of the pest (see PM 7/98)</b>	66% for 1 J2 and 100% for 2 J2 of M. chitwoodi
<b>Repeatability</b>	
<b>Provide the calculated % of agreement for a given level of the pest (see PM 7/98)</b>	25% for 1 J2 and 100% for 2 J2 of M. chitwoodi
<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.