

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.

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| 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 | Detection of <i>Bursaphelenchus xylophilus</i> in wood extract with real-time PCR François et al. 2007 |
| Date, reference of the validation report | 2011-02-01 - Anses 2011 Rapport d'évaluation d'outils moléculaires de détection de <i>Bursaphelenchus xylophilus</i> sur extrait de bois |
| 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? | no |
| Description of the test | |
| Organism(s) | <i>Bursaphelenchus xylophilus</i> (BURSXY) |
| Detection / identification | detection |
| Method(s) | Molecular real time PCR |
| Method: Molecular real time PCR | |
| Reference of the test description | |
| As or adapted from an EPPO diagnostic protocol | no |
| As or adapted from an IPPC diagnostic protocol | no |
| Reference of the test | François C, Castagnone C, Boonham N, Tomlinson J, Lawson R, Hockland S, Quill J, Vieira P, Mota M, Castagnone-Sereno P (2007) Satellite DNA-based species-specific identification of the pinewood nematode, <i>Bursaphelenchus xylophilus</i> . <i>Molecular Plant Pathology</i> 8(6), 803-809 |
| Other information | |
| Reaction type | Probe |
| Other details on the test | real time PCR (Taqman) |
| Performance Criteria : | |
| Organism 1.: | <i>Bursaphelenchus xylophilus</i>(BURSXY) |

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| Analytical sensitivity | |
| What is smallest amount of target that can be detected reliably? | 1 individual |
| Diagnostic sensitivity | |
| Proportion of infected/infested samples tested positive compared to results from the standard test, see appendix 2 of PM 7/98 | 100% |
| Standard test(s) | morphology |
| Analytical specificity - inclusivity | |
| Number of strains/populations of target organisms tested | 7 populations (see table1) |
| Specificity value | 100% |
| Analytical specificity - exclusivity | |
| Number of non-target organisms tested | 15 populations (see table1) |
| Specificity value | 100% - no cross reaction |
| Diagnostic Specificity | |
| Proportion of uninfected/uninfested samples (true negatives) testing negative compared to results from a standard test | 100% for one individual |
| Specify the test(s) | morphology |
| Reproducibility | |
| Provide the calculated % of agreement for a given level of the pest (see PM 7/98) | 100% for one individual |
| Repeatability | |
| Provide the calculated % of agreement for a given level of the pest (see PM 7/98) | 100% |
| Test performance study | |
| Test performance study? | no |
| Other information | |
| Any other information considered useful | The full report is available upon request to the laboratory. French version only |
| The following complementary files are available online: | <ul style="list-style-type: none"> • Table 1 List of species and population tested |

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