

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 | Identification of Bursaphelenchus xylophilus by specifc PCR Castagnone et al. 2005 |
| Date, reference of the validation report | 2011-05-01 - Evaluation d'outils moléculaires d'identification de Bursaphelenchus xylophilus sur individus isolés |
| Validation process according to EPPO Standard PM7/98? | yes |
| Is the lab accredited for this test? | no |
| Was the validated data generated in the framework of a project? | |
| Description of the test | |
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| Organism(s) | Bursaphelenchus xylophilus(BURSXY) |
| Detection / identification | detection |
| 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 7/004 Bursaphelenchus xylophilus (version 3) |
| Name of the test | Satellite DNA-based PCR technique (Castagnone et al., 2005) |
| As or adapted from an IPPC diagnostic protocol | no |
| Is the test modified compared to the reference test | no |
| Other information | |
| Other details on the test | satellite DNA species specific PCR |
| Performance Criteria : | |
| Organism 1.: | Bursaphelenchus xylophilus(BURSXY) |
| Analytical sensitivity | |

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| What is smallest amount of target that can be detected reliably? | 2-5 nematods |
| <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 | Not performed |
| Standard test(s) | Not relevant |
| <u>Analytical specificity - inclusivity</u> | |
| Number of strains/populations of target organisms tested | 7 populations (see table1) |
| Specificity value | 100% |
| <u>Analytical specificity - exclusivity</u> | |
| Number of non-target organisms tested | 15 populations (see table1) |
| Specificity value | 100% - no cross reaction |
| <u>Diagnostic Specificity</u> | |
| Proportion of uninfected/uninfested samples (true negatives) testing negative compared to results from a standard test | Not performed |
| Specify the test(s) | Not relevant |
| <u>Reproducibility</u> | |
| Provide the calculated % of agreement for a given level of the pest (see PM 7/98) | 95.8% for 2 nematodes 100% for 5 nematodes |
| <u>Repeatability</u> | |
| Provide the calculated % of agreement for a given level of the pest (see PM 7/98) | 100% |
| <u>Test performance study</u> | |
| Test performance study? | no |
| <u>Other information</u> | |
| Any other information considered useful | See table 2. 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 Specificity_PCR • Table 2 comparison of different PCR tests B xylophilus identification |

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