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.

| ILVO Institute for Agricultural and Fisheries Research Burg. Van Gansberghelaan 96, 9820 Merelbeke, Belgium | | |
|---|--|--|
| Detection of Phytophthora ramorum by plating infected plant material and morfological evaluation the culture | | |
| 2009-03-31 - F16_S08 | | |
| no | | |
| yes | | |
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| | | |
| • | | |
| Description of the test | | |
| | | |
| Phytophthora ramorum(PHYTRA) | | |
| detection | | |
| Leaves, Shoots Leaves and stems of Rhododendron "Cunningham's White", leaves of Viburnum x bodnantense "Dawn" and Camellia japonica | | |
| Camellia japonica, Rhododendron ponticum, Viburnum x bodnantense | | |
| Isolation Morphological | | |
| Method: Isolation | | |
| Reference of the test description | | |
| yes | | |
| e ? | | |
| PM 7/066 Phytophthora ramorum (version 1) | | |
| | | |
| Isolation from plant material with P5ARP [H] | | |
| | | |

| Is the test modified compared to the reference test | yes slight modification in composition of semi- selective medium | |
|---|--|--|
| Other information | | |
| Other details on the test | Pieces of surface sterilized infected material are plated on semi-selective media (P5ARP) | |
| Method: Morphological | | |
| Reference of the test description | | |
| As or adapted from an EPPO diagnostic protocol | yes | |
| New test being considered for inclusion in the next version of the EPPO diagnostic protocol? | | |
| EPPO Diagnostic Protocol name | PM 7/066 Phytophthora ramorum (version 1) | |
| Name of the test | | |
| As or adapted from an IPPC diagnostic protocol | | |
| Is the test modified compared to the reference test | | |
| Other information | | |
| Other details on the test | Morphological identification using a microscope and checklist (F03_S03) with most important morphological characters of the fungus. | |
| Are the performance characteristics included | no | |
| in the EPPO diagnostic protocol? | | |
| in the EPPO diagnostic protocol? Performance Criteria: | | |
| | Phytophthora ramorum(PHYTRA) | |
| Performance Criteria : | Phytophthora ramorum(PHYTRA) | |
| Performance Criteria : Organism 1.: | Phytophthora ramorum(PHYTRA) Two plated pieces of freshly infected leaf material out of 20 plated pieces | |
| Performance Criteria: Organism 1.: Analytical sensitivity What is smallest amount of target that can be | Two plated pieces of freshly infected leaf material | |
| Performance Criteria: Organism 1.: Analytical sensitivity What is smallest amount of target that can be detected reliably? | Two plated pieces of freshly infected leaf material | |
| Performance Criteria: Organism 1.: Analytical sensitivity What is smallest amount of target that can be detected reliably? Diagnostic sensitivity Proportion of infected/infested samples tested positive compared to results from the | Two plated pieces of freshly infected leaf material out of 20 plated pieces 100%. All samples that were also analysed with real-time PCR gave identical results, i.e. there were | |
| Performance Criteria: Organism 1.: Analytical sensitivity What is smallest amount of target that can be detected reliably? Diagnostic sensitivity Proportion of infected/infested samples tested positive compared to results from the standard test, see appendix 2 of PM 7/98 | Two plated pieces of freshly infected leaf material out of 20 plated pieces 100%. All samples that were also analysed with real-time PCR gave identical results, i.e. there were no false negatives | |
| Performance Criteria: Organism 1.: Analytical sensitivity What is smallest amount of target that can be detected reliably? Diagnostic sensitivity Proportion of infected/infested samples tested positive compared to results from the standard test, see appendix 2 of PM 7/98 Standard test(s) | Two plated pieces of freshly infected leaf material out of 20 plated pieces 100%. All samples that were also analysed with real-time PCR gave identical results, i.e. there were no false negatives | |
| Performance Criteria: Organism 1.: Analytical sensitivity What is smallest amount of target that can be detected reliably? Diagnostic sensitivity Proportion of infected/infested samples tested positive compared to results from the standard test, see appendix 2 of PM 7/98 Standard test(s) Analytical specificity - inclusivity Number of strains/populations of target | Two plated pieces of freshly infected leaf material out of 20 plated pieces 100%. All samples that were also analysed with real-time PCR gave identical results, i.e. there were no false negatives real-time PCR One in our own validation scheme but the test gave correct results with several isolates from | |
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| Cross reacts with | | |
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| | L | |
| <u>Diagnostic Specificity</u> | | |
| Proportion of uninfected/uninfested samples (true negatives) testing negative compared to results from a standard test | 100%. All samples that were also analysed with real-time PCR gave identical results, i.e. there were no false positives. | |
| Specify the test(s) | real-time PCR | |
| Reproducibility | | |
| Provide the calculated % of agreement for a given level of the pest (see PM 7/98) | 100% | |
| 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 | |
| Brief details of the test performance study and its output.It available, link to published article/report | | |
| Other information | | |
| Any other information considered useful | Participation in proficiency tests, including a published one (EPPO Bulletin, 38: 191-197, (2008)) Robustness and selectivity have also been established. | |

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