

**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>	Bavarian State Research Center for Agriculture, Institute for Plant Protection - Phytopathology and Diagnosis Lange Point 10, 85354 Freising, Germany
<b>Short description of the test</b>	Detection of <i>Pantoea stewartii</i> subsp. <i>stewartii</i> in plant and seed extract by conventional PCR
<b>Date, reference of the validation report</b>	2017-09-19 -
<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>If yes, please specify</b>	
<b>Description of the test</b>	
<b>Organism(s)</b>	<i>Pantoea stewartii</i> subsp. <i>stewartii</i> (ERWIST)
<b>Detection / identification</b>	detection
<b>Matrix(ces) tested</b>	Leaves, Seeds seed soaking liquid, leaf extract
<b>Plant species tested</b>	<i>Zea mays</i>
<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>	no
<b>New test being considered for inclusion in the next version of the EPPO diagnostic protocol?</b>	
<b>As or adapted from an IPPC diagnostic protocol</b>	no
<b>Reference of the test</b>	Gehring I, Wensing A, Gernold M, Wiedemann W, Coplin DL Geider K (2014) Molecular differentiation of <i>Pantoea stewartii</i> subsp. <i>indologenes</i> from subspecies <i>stewartii</i> and identification of new isolates from maize seeds. <i>Journal of Applied Microbiology</i> 116, 1553-1562. Nechwatal J, FriedrichZorn M, Theil S, Gebauer P, Wensing A (2018) Validation of a specific PCR screening test

	for <i>Pantoea stewartii</i> subsp. <i>stewartii</i> in maize ( <i>Zea mays</i> ) samples. Bulletin OEPP/ EPPO Bulletin, in press.
<b>Is the test modified compared to the reference test</b>	
<b>Kit</b>	
<b>Is a kit used</b>	
<b>Other information</b>	
<b>Reaction type</b>	
<b>Other details on the test</b>	
<b>Are the performance characteristics included in the EPPO diagnostic protocol?</b>	<b>no</b>
<b>Performance Criteria :</b>	
<b>Organism 1.:</b>	<b><i>Pantoea stewartii</i> subsp. <i>stewartii</i>(ERWIST)</b>
<b>Analytical sensitivity</b>	
<b>What is smallest amount of target that can be detected reliably?</b>	seed soaking liquid: $10^3$ / ml leaf extract: $10^2$ / ml
<b>Diagnostic sensitivity</b>	
<b>Proportion of infected/infested samples tested positive compared to results from the standard test, see appendix 2 of PM 7/98</b>	not done
<b>Standard test(s)</b>	n/a
<b>Analytical specificity - inclusivity</b>	
<b>Number of strains/populations of target organisms tested</b>	8 strains of target organism
<b>Specificity value</b>	100%
<b>Analytical specificity - exclusivity</b>	
<b>Number of non-target organisms tested</b>	13 species, 26 strains
<b>Specificity value</b>	100% no cross reaction
<b>Cross reacts with</b>	
<b>Diagnostic Specificity</b>	
<b>Proportion of uninfected/uninfested samples (true negatives) testing negative compared to results from a standard test</b>	not done
<b>Specify the test(s)</b>	n/a
<b>Reproducibility</b>	
<b>Provide the calculated % of agreement for a given level of the pest (see PM 7/98)</b>	seed soaking liquid: 100% for $10^3$ / ml, 75% for $10^2$ / ml leaf extract: 100% for $10^2$ / ml
<b>Repeatability</b>	
<b>Provide the calculated % of agreement for a given level of the pest (see PM 7/98)</b>	seed soaking liquid: 100% for $10^2$ / ml leaf extract: 100% for $10^2$ / ml

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	
The following complementary files are available online:	<ul style="list-style-type: none"> <li>• <a href="#">Strains used for specificity (inclusivity/exclusivity) testing</a></li> </ul>

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