

**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 - Bacteriology, Virology and GMO Unit 7 rue Jean Dixm�ras, 49044 Angers, France
<b>Short description of the test</b>	Detection of BNYVV by ELISA in host plant material
<b>Date, reference of the validation report</b>	2014-11-01 - 122 ; Renaudin I., Loiseau M. (2014). Evaluation des m�thodes de d�tection du Beet necrotic yellow vein virus (BNYVV).
<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>	no
<b>If yes, please specify</b>	
<b>Description of the test</b>	
<b>Organism(s)</b>	Beet necrotic yellow vein virus(BNYVV0)
<b>Detection / identification</b>	detection
<b>Matrix(ces) tested</b>	Roots Beta vulgaris subsp. vulgaris
<b>Plant species tested</b>	Beta vulgaris, Chenopodium quinoa, Nicotiana benthamiana, Spinacia oleracea
<b>Method(s)</b>	Serological DAS-ELISA
<b>Method: Serological DAS-ELISA</b>	
<b>Reference of the test description</b>	
<b>As or adapted from an EPPO diagnostic protocol</b>	yes
<b>New test being considered for inclusion in the next version of the EPPO diagnostic protocol?</b>	
<b>EPPO Diagnostic Protocol name</b>	PM 7/030 Beet necrotic yellow vein virus (version 2)
<b>Name of the test</b>	
<b>As or adapted from an IPPC diagnostic protocol</b>	
<b>Is the test modified compared to the reference test</b>	no
<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>Beet necrotic yellow vein virus(BNYVV0)</b>
<b>Analytical sensitivity</b>	
<b>What is smallest amount of target that can be detected reliably?</b>	in our condition and with our infected material, between a dilution of 1/100 and 1/250 of an infected material in an healthy material. Approximatly, 40 times less sensitive than real-time RT-PCR (Harju et al., 2005)
<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>	1
<b>Standard test(s)</b>	20 samples agreement/20 (2 replicate for each sample)
<b>Analytical specificity - inclusivity</b>	
<b>Number of strains/populations of target organisms tested</b>	10 different samples infected by BNYVV isolated in France
<b>Specificity value</b>	
<b>Analytical specificity - exclusivity</b>	
<b>Number of non-target organisms tested</b>	4 healthy Beta vulgaris subsp. vulgaris Healthy Spinacia oleracea Tobacco rattle virus Beet black scotch virus Beet mosaïc virus Beet western yellows virus Beet yellows virus Beet soil-borne mosaic virus Soil-borne wheat mosaic virus Potato mop top virus
<b>Specificity value</b>	Cross react with: Beet yellows virus Beet black scorch virus Potato mop top virus Soil borne wheat mosaic virus
<b>Cross reacts with</b>	Beet yellows virus Beet black scorch virus Potato mop-top virus Wheat mosaic virus
<b>Diagnostic Specificity</b>	
<b>Proportion of uninfected/uninfested samples (true negatives) testing negative compared to results from a standard test</b>	0,75
<b>Specify the test(s)</b>	72 samples agreement/96
<b>Reproducibility</b>	

<b>Provide the calculated % of agreement for a given level of the pest (see PM 7/98)</b>	Not evaluated
<b><u>Repeatability</u></b>	
<b>Provide the calculated % of agreement for a given level of the pest (see PM 7/98)</b>	100% in the range of dilution described for analytical sensitivity
<b>Test performance study</b>	
<b>Test performance study?</b>	no
<b>Brief details of the test performance study and its output. If available, link to published article/report</b>	
<b>Other information</b>	
<b>Any other information considered useful</b>	

*Creation date: 2015-06-05 00:00:00 - Last update: 2020-10-23 16:52:51*