



June 2017 PEST Report - THE NETHERLANDS

National Plant Protection Organization
POBox 9102
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The Netherlands

1.1 Confirmation of eradication:

Finding of Potato spindle tuber viroid (PSTVd) in August 2016, in one genitor of *Solanum tuberosum* in one small field of breeding material in the municipality Noordoostpolder

1.2 Executive summary

This report confirms eradication of PSTVd following one year of surveillance and testing at the breeding company where the pest was detected last year (see pest report August 2016). No further findings were recorded in the course of this year.

The finding resulted from regular official controls and was officially confirmed on August 15, 2016. One genitor tested positive for PSTVd. A total of four plants of this genitor were grown in two small fields used by a breeding company. This company was recently established and started performing small-scale field selections of breeding material. No seed- or ware potatoes are cultivated by this company. The infected genitor has been imported from Northern Ireland in 2016. The organism is listed as a harmful organism in the EU directive 2000/29/EC and is listed on the EPPO A2 list.

Identity of the pest: Potato spindle tuber viroid (PSTVd).

Categorization of the pest: Quarantine pest, EU Annex IAI, EPPO A2.

Location: Municipality Noordoostpolder.

Reason of the notification: Close-out note following a finding in August 2016.

How the pest was found: (1) pest related official survey

Information on the infested area, severity and source of the outbreak: Four plants of one genitor in two small fields used for selection purposes. The infected genitor was imported from Northern Ireland.

Official phytosanitary measures: All infected material has been destroyed. Two small fields of the company were demarcated. Cultivation of potato is prohibited for the duration of two years.

1.3 Type of notification

(4) closing note indicating the termination of the taken measures and the reasoning for such termination.

2.1 Single Authority


Notification from the National Plant Protection Organization of the Netherlands – Netherlands Consumer and Product Safety Authority

2.2 Official contact

M.B. de Hoop. +31651584878 Email: m.b.dehoop@nvwa.nl

3. Location of presence of harmful organism

Two small outdoor fields in the municipality Noordoostpolder (province Flevoland).

3.2 Map of the location.	
4. Reason of the notification and pest status	<p>(2) Appearance of the harmful organism in part of the territory in which its presence was previously unknown. This concerned a new finding of PSTVd in breeding material of <i>S. tuberosum</i> in the Netherlands. Earlier records of PSTVd in the Netherlands concern findings on <i>Brugmansia</i>, <i>C. annum</i>, <i>Dahlia</i>, <i>S. jasminoides</i>, <i>S. lycopersicum</i>, and <i>S. tuberosum</i>. See also https://english.nvwa.nl/documents/document/pest-reporting/pest-reports</p>
4.3 Previous Pest status	<p>(17) Other. Transient: under eradication in <i>Solanum tuberosum</i> breeding material and <i>Capsicum annum</i>; transient in ornamentals (<i>S. jasminoides</i>); Pest eradicated in <i>Dahlia</i> sp and <i>Solanum lycopersicum</i> fruit production</p>
4.4 Current Pest status	<p>(16) Other. Transient in ornamentals (<i>S. jasminoides</i>); Pest eradicated in <i>Dahlia</i>, <i>Solanum lycopersicum</i> fruit production, <i>Capsicum annum</i> fruit production and <i>Solanum tuberosum</i> breeding material.</p>
5. Information relating to the finding.	<p>5.1 (3) phytosanitary inspections of any type: The finding on August 2, 2016 resulted from regular official controls at a small breeding company that was recently established. Testing is part of the official surveillance system of the Netherlands for safeguarding the entire potato production column from PSTVd.</p>
5.2 Date of finding.	<p>A composite sample tested positive for pospiviroids on</p>

	August 8, 2016. Individual testing of all sub samples , and subsequent RT-PCR (Shamloul et al. 1997), followed by sequence analysis of the obtained PCR product, confirmed the presence of PSTVd on August 15, 2016.
5.3 Sampling for laboratory analysis	The individual testing of potato genotypes was performed using two leaves from two plants (four leaves in total).
5.4 Laboratory	Mr Anton T.C. van der Sommen. Tel: +31 65 124 7175 Email: a.t.c.vandersommen@nvwa.nl National Reference Centre - NPPO of the Netherlands
5.5 Diagnostic method.	(1) According to international standard protocol IPPC DP 07 (https://www.ippc.int/en/publications/8073/); Validation data published in the EPPO database on Diagnostic expertise – Validation data for diagnostic tests (http://dc.eppo.int/validationlist.php). To confirm the presence of PSTVd, official samples taken by the NPPO were tested by RT-PCR using primers described by Shamloul et al. (1997). The identity was confirmed by sequence analysis of the complete genome obtained by sequencing of the obtained PCR product.
5.6 Date of official confirmation of the harmful organism's identity	Official testing confirmed PSTVd on August 15, 2016.
6. Information related to the area, severity of the finding and source of the finding	6.1. Size and delimitation of the infested area. (2) One genitor of the small-scale breeding program was found to be infected with PSTVd A total of four plants of this infested genitor were grown on two fields of the breeding company.
6.2. Characteristics of the infested area and its vicinity.	Indication of one or more of the following options: (1) Open air – production area (1.1) field (arable, pasture);
6.3. Host plants in the infested area and its vicinity.	A small number of genitors and selections of <i>S. tuberosum</i> were present in the two demarcated fields.
6.4. Infested plant(s), plant product(s) and other object(s).	One genitor of <i>S. tuberosum</i> was infected.
6.5. Vectors present in the	Not relevant.

area.	
6.6. Severity of the outbreak.	Growth cracks were observed on tubers of infected plants. No direct links existed between the infected genotype and commercially available potato cultivars.
6.7. Source of the outbreak.	The breeding company imported the infected genitor from Northern Ireland. All plants of the other 90 genitors that were cultivated in the same fields tested negative for PSTVd.
7. Official phytosanitary measures	
7.1. Adoption of official phytosanitary measures.	(1) Official phytosanitary measures in the form of destruction of all infected material were taken. Both fields of the breeder have been demarcated. Cultivation of potato is prohibited for the duration of two years. Plants of the other 90 genitors that were cultivated in the same fields tested negative for PSTVd. A second negative test result was required before this material could be used for further breeding purposes.
7.2. Date of adoption of the official phytosanitary measures. In case of temporary measures, indication of their expected duration.	Measures have been imposed following official suspicion of PSTVd (from August 3, 2016 onwards). Measures will be lifted after the two-year prohibition period.
7.4. Objective of the official phytosanitary measures.	(1) Eradication.
7.5. Measures affecting the movement of goods. Indication of one of the following options	(2) measures do not affect import into or movement within the Union of goods.
7.6. Specific surveys.	The genitor was imported from Northern Ireland by the company in 2016. The company did not distribute the material elsewhere.
8. Pest risk analysis/assessment	(1) Pest risk analysis is not required (harmful organism is listed in Annex I or Annex II of Directive 2000/29/EC, or is

	subject to measures adopted pursuant to Article 16(3) of that Directive.
9. Links to relevant websites, other sources of information.	Earlier records of PSTVd in the Netherlands concern findings on <i>Brugmansia</i> , <i>Dahlia</i> , <i>S. jasminoides</i> , <i>S. lycopersicum</i> , <i>C. annuum</i> and <i>S. tuberosum</i> . Detailed pest reports are accessible via the following link: https://english.nvwa.nl/topics/pest-reporting/contents/pest-reports

References

Shamloul, A. M., Hadidi, A., Zhu, S. F., Singh, R. P., Sagredo, B. (1997). Sensitive detection of potato spindle tuber viroid using RT-PCR and identification of a viroid variant naturally infecting pepino plants. *Canadian Journal of Plant Pathology*, 19, 89-96.