NAME OF THE ORGANISM: Tomato spotted wilt tospovirus (tomato spotted wilt virus) (TSWV00)

GENERAL INFORMATION ON THE PEST

Name as submitted in the project specification (if different to the preferred name):
 
  
Pest category:
 
Viruses and viroids **1- Identity of the pest/Level of taxonomic listing:**  
Is the organism clearly a single taxonomic entity and can it be adequately distinguished from other entities of the same rank?
 
Yes  
Is the pest defined at the species level or lower?:
 
Yes  
Can listing of the pest at a taxonomic level higher than species be supported by scientific reasons or can species be identified within the taxonomic rank which are the (main) pests of concern?

* Not relevant: Ornamental sector

Is it justified that the pest is listed at a taxonomic rank below species level?
 
Not relevant  
Conclusion:

* Candidate: Ornamental sector

Justification (if necessary):
 
Tomato spotted wilt tosopvirus (TSWV) is a single taxonomic entity (genus Tospovirus: family Bunyaviridae). In 2015 it was proposed to change the name of the virus from Tomato spotted wilt virus to Tomato spotted wilt tospovirus (ICTV, 2015; Van Regenmortel et al., 2015). It has been ratified in 2016 for all the family of the Bunyaviridae. **2 – Status in the EU:**
   
Is this pest already a quarantine pest for the whole EU?
 
No  
Presence in the EU:
 
Yes  
List of countries (EPPO Global Database):
 
Belgium (2014); Bulgaria (2013); Croatia (1999); Cyprus (2011); Czech Republic (2011); France (2013); Germany (2011); Greece (2002); Greece/Kriti (1994); Hungary (2012); Ireland (1993); Italy (2013); Italy/Sicilia (1994); Italy/Sardegna (2006); Lithuania (1998); Malta (2011); Netherlands (2015); Portugal (2011); Portugal/Madeira (2001); Romania (2011); Slovenia (2011); Spain (2016); Spain/Islas Canárias (2011); Spain/Islas Baleares (2011); Sweden (1998); United Kingdom (2011); United Kingdom/England (1995); United Kingdom/Scotland (1995); United Kingdom/Channel Islands (1994)  
Conclusion:
 
candidate  
Justification (if necessary):
 
Data of the presence of this pest on the EU territory are available in EPPO Global Database (<https://gd.eppo.int/>).

HOST PLANT N°1: Euphorbia pulcherrima (EPHPU) for the Ornamental sector.

Origin of the listing:
 
Commission Directive 93/49/EEC  
Plants for planting:
 
Plants intended for planting, other than seeds **3 - Is the pest already listed in a PM4 standard on the concerned host plant?**
 
No 
Conclusion:
 
Evaluation continues **4 - Are the listed plants for planting the main\* pathway for the "pest/host/intended use" combination? (\*: significant compared to others):**
 
? 
Conclusion:
 
Candidate  
 
Justification:
 
TSWV has an extremely wide host range with more than 1 300 plants including agricultural crops, wild and weed species (Parrella et al., 2003; Peters, 2003). TSWV is a systemic pathogen and, as such, it is very efficiently transmitted by all vegetative multiplication techniques (EFSA-PLH, 2012). The virus is transmitted by thrips in a persistent propagative mode (Ullman et al., 1993; Wijkamp et al., 1993). Because of the persistence of TSWV in the vectors, the virus can be carried by infected plant material but also by viruliferous thrips, which can be present on a consignment that is infected with TSVW or even on consignments of non-host plants of the virus. The interception reports in EUROPHYT (very few) indicate that TSWV is found mostly in consignments of ornamentals. No interceptions have been reported on Euphorbia for the period 1996-2012. Euphorbia sp. is not included in the plant species found infected with TSWV in the Netherlands and USA (Verhoeven and Roenhorst, 1994; Daughtrey et al., 1997; Verhoeven and Roenhorst, 1998). TSWV and viruliferous thrips are being transported in living planting material and will survive transport and storage as long as their hosts remain alive (EFSA-PLH, 2012). Experts concluded that it is questionable if plants for planting of this host represent a significant pathway compared to other pathways. **5 - Economic impact:**  
Are there documented reports of any economic impact on the host?
 
No impact  
Justification:
 
No information of TSWV on this host species was available, neither was other information on direct impacts on this host found (Only references to it being EU listed). Rosa hybrids and Euphorbia pulcherrima are the only major flower crops not susceptible to INSV or TSWV (Daughtrey et al., 1997).  
What is the likely economic impact of the pest irrespective of its infestation source in the absence of phytosanitary measures? (= official measures)
 
  
Is the economic impact due to the presence of the pest on the named host plant for planting, acceptable to the propagation and end user sectors concerned?
 
  
Is there unacceptable economic impact caused to other hosts (or the same host with a different intended use) produced at the same place of production due to the transfer of the pest from the named host plant for planting?
 
  
Conclusion:
 
Not candidate  
Justification:
 
 **CONCLUSION ON THE STATUS:**
 
Disqualified: limited evidence of economic impact on the host plant. **8 - Tolerance level:**  
Is there a need to change the Tolerance level:
 
No  
Proposed Tolerance levels:
 
Delisting. **9 - Risk management measures:**  
Is there a need to change the Risk management measure:
 
No  
Proposed Risk management measure:
 
Delisting. **REFERENCES:**

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* EFSA Panel on Plant Health (PLH) (2012) Scientific Opinion on the risk to plant health posed by Tomato spotted wilt virus to the EU territory with identification and evaluation of risk reduction options. EFSA Journal 2012;10(12):3029. [64 pp.] doi:10.2903/j.efsa.2012.3029. Available online: www.efsa.europa.eu/efsajournal;
* International Committee on Taxonomy of Viruses (ICTV) (2015) Implementation of non-Latinized binomial species names in the family Bunyaviridae;
* Parrella G, Gognalons P, Gebre-Selassie K, Vovlas C and Marchoux G (2003) An update of the host range of tomato spotted wilt virus. Journal of Plant Pathology 85, 227–264;
* Van Regenmortel MH, Burke DS, Calisher CH, Dietzgen RG, Fauquet CM, Ghabrial SA, Jahrling PB, Johnson KM, Holbrook MR, Horzinek MC, Keil GM, Kuhn JH, Mahy BW, Martelli GP, Pringle C, Rybicki EP, Skern T, Tesh, RB, Wahl - Jensen V, Walker PJ & Weaver SC (2010) A proposal to change existing virus species names to non - Latinized binomials. Arch. Virol. 2010 155, 1909 - 1919;
* Verhoeven TJ & Roenhorst JW (1994) Tomato spotted wilt virus: ecological aspects in ornamental crops in the Netherlands from 1989 up to 1991. Acta Horticulturae, 377, 175–182;
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