NAME OF THE ORGANISM: Potato virus Y (PVY000)

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: Seed potato sector, Vegetable propagating and planting material (other than seeds) sector

Is it justified that the pest is listed at a taxonomic rank below species level?

Not relevant
Conclusion:

* Candidate: Vegetable propagating and planting material (other than seeds) sector
* Not evaluated: Seed potato sector

Justification (if necessary):

Seed potato sector: the pest is not evaluated, because qualified based on EPPO PM 4 Standard;
Vegetable propagating and planting material (other than seeds) sector: Aphid transmitted in a non-persistent manner, this virus seems to have the same effects on pepper as for tomato and aubergine (EPPO, 2004). Therefore it is suggested it should be treated in the same manner as for those two hosts. **2 – Status in the EU:**

Is this pest already a quarantine pest for the whole EU?

No
Presence in the EU:

Yes
Conclusion:

candidate

HOST PLANT N°1: Capsicum annuum (CPSAN) for the Vegetable propagating and planting material (other than seeds) sector.

Origin of the listing:

RNQP Questionnaire
Plants for planting:

Plants intended for planting **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):**

No
Conclusion:

Not candidate

Justification:

PVY has a relatively wide host range including mainly Solanaceous crops as well as Solanaceous and non-Solanaceous weeds, the latter constituting a natural virus reservoir (Kaliciak & Syller, 2009; Kerlan, 2006). PVY is an unusual potyvirus in having numerous vector aphid species (Shukla et al., 1994), but in most areas and seasons, Myzus persicae is the most important vector given that it is widespread and that its efficiency of transmission is high. In tomato and pepper crops, solanaceous weeds, often primarily infected from potato crops, are the sources of infection in many countries (e.g. S. nigrum and S. dulcamara in Southern Europe) (Marchoux et al., 1976; Gebre-Selassie et al., 1985; 1987). Plants for planting are not considered to be a significant pathway. **CONCLUSION ON THE STATUS:**

Disqualified: prominent role of weed reservoir hosts. A 'substantially free from' requirement would be sufficient. Hence, it is recommended that the virus in pepper is treated similar to tomato and eggplant. For these hosts, the “substantially free from requirement” was considered to be appropriate by all countries answering to the questionnaire. **8 - Tolerance level:**
Is there a need to change the Tolerance level:

No
Proposed Tolerance levels:

Not recommended for the RNQP status. **9 - Risk management measures:**
Is there a need to change the Risk management measure:

No
Proposed Risk management measure:

Not recommended for the RNQP status. **REFERENCES:**

* Edwardson JR & Christie RG (1997) Florida Agricultural Experiment Station Monograph Series 18, 467;
* Gebre-Selassie K, Marchoux G, Delecolle B & Pochard E (1985) Variabilité naturelle des souches de virus Y dans les cultures de piment du Sud-Est de la France: caractérisation et classification en pathotypes. Agronomie 5, 621;
* Gebre-Selassie K, Marchoux G, Laterrot H & Blancard D (1987) Graves attaques de la Tomate par des souches nécrogènes du Virus Y de la Pomme de terre. PHM-Revue Horticole 281, 43;
* Kaliciak A & Syller J (2009) New hosts of Potato virus Y (PVY) among common wild plants in Europe. European Journal of Plant Pathology 124, 707–13;
* Kerlan C (2006) Potato virus Y. CMI/AAB Descriptions of Plant Viruses no. 414;
* Marchoux G, Gebre-Selassie K & Quiot JB (1976) Observations préliminaires concernant les souches et les plantes réservoirs du virus Y de la Pomme-de-terre dans le Sud-Est de la France. Agriculturae Conspectus Scientificus 39, 541;
* Shukla DD, Ward CW and Brunt AA (1994) The Potyviridae. CAB International, Wallingford, UK;

HOST PLANT N°2: Solanum lycopersicum (LYPES) for the Vegetable propagating and planting material (other than seeds) sector.

**CONCLUSION ON THE STATUS:**

Not evaluated: This pest/host combination was not identified by any EU MS in the RNQP Questionnaire as requiring a revision of current thresholds and or a revision of current management measures. This pest/host combination was not identified by the experts of the vegetable SEWG as being a candidate for the RNQP Status with specific tolerance levels and/or specific risk management measures. Experts recommended that this pest/host combination should be covered in the future by the 'substantially free from' requirement that will remain in the Vegetable propagating and planting (excluding seeds) EU Marketing Directives.

HOST PLANT N°3: Solanum melongena (SOLME) for the Vegetable propagating and planting material (other than seeds) sector.

**CONCLUSION ON THE STATUS:**

Not evaluated: This pest/host combination was not identified by any EU MS in the RNQP Questionnaire as requiring a revision of current thresholds and or a revision of current management measures. This pest/host combination was not identified by the experts of the vegetable SEWG as being a candidate for the RNQP Status with specific tolerance levels and/or specific risk management measures. Experts recommended that this pest/host combination should be covered in the future by the 'substantially free from' requirement that will remain in the Vegetable propagating and planting (excluding seeds) EU Marketing Directives.

HOST PLANT N°4: Solanum tuberosum (SOLTU) for the Seed potato sector.

Origin of the listing:

5 - Seed potato sector: Council Directives 2002/56/EC, 2014/20/EU and 2014/21/EU
Plants for planting:

Plants intended for planting, other than [true] seeds **3 - Is the pest already listed in a PM4 standard on the concerned host plant?**

Yes
Conclusion:

Qualified **CONCLUSION ON THE STATUS:**

Recommended for listing as an RNQP, based on EPPO PM 4 Standard. **8 - Tolerance level:**
Is there a need to change the Tolerance level:

No
Proposed Tolerance levels:

 **9 - Risk management measures:**
Is there a need to change the Risk management measure:

No
Proposed Risk management measure:

 **REFERENCES:**