NAME OF THE ORGANISM: Verticillium dahliae (VERTDA)

GENERAL INFORMATION ON THE PEST

Name as submitted in the project specification (if different to the preferred name):

Pest category:

Fungi **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: 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

**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):

Austria (2014); Belgium (2015); Bulgaria (1986); Cyprus (2011); Czech Republic (2011); Denmark (1986); France (1986); Germany (2012); Greece (2013); Greece/Kriti (2013); Hungary (1986); Italy (2007); Malta (2007); Netherlands (2015); Portugal (1986); Slovakia (2012); Spain (2014); United Kingdom (2014); United Kingdom/England (1986); United Kingdom/Scotland (1986); United Kingdom/Channel Islands (1986)
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/>). V. dahliae is present in most EU MSs, with the exception of Ireland (absent, no pest records) and Poland (absent/uncertain). The current status of V. dahliae in the MSs where the pathogen is known to occur ranges from “restricted distribution” to “widespread” (EFSA, 2014).

HOST PLANT N°1: Cynara cardunculus (CYUCA) for the Vegetable propagating and planting material (other than seeds) sector.

Origin of the listing:

2 - Vegetable seedling sector: Commission Directive 93/61/EC
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:

Verticillium albo-atrum and V. dahliae cause wilting and sometimes death of plants. Verticillium wilt is a cool-weather disease and has a wide host range in natural areas. The two Verticillium spp. survive in soil, as long lived resting mycelium or microsclerotia, respectively, or in debris from infected plants. Control is by use of healthy planting material, resistant cultivars, prevention of movement of infected plants and infested soil, removal of diseased plants and plant debris, avoiding high nitrogen concentrations and soil disinfestation. Crop rotation can reduce losses, but not eliminate the pathogens because of the wide host range of Verticillium spp. (EPPO, 2004). Bell pepper was found resistant to all V. dahliae isolates except those from pepper or eggplant in one paper, but in two other papers found little host specificity existed in isolates of V. dahliae and V. alboatrum, so crop rotation would not assist in control.
Because cardon is grown from seeds, and because of the wide host range and longevity of inoculum sources in the environment, planting material (transplants) are not considered to be the main pathway. Once, established, V. dahliae can be spread by infected asymptomatic weed seeds and weed seeds, by water and by human-assisted means. **CONCLUSION ON THE STATUS:**

Disqualified: plants for planting are not the main pathway. Remark: the full methodology was applied on this pest to insure consistency with entries submitted by the IIA2 AWG for this pest. Indeed 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 stay in the Vegetable propagating and planting (excluding seeds) EU Marketing Directives. **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:**

* EFSA Panel on Plant Health (PLH) (2014) Scientific Opinion on the pest categorisation of Verticillium dahliae Kleb. EFSA Journal 2014;12(12):3928, 54 pp. doi:10.2903/j.efsa.2014.3928. <http://www.efsa.europa.eu/en/efsajournal/doc/3928.pdf>;
* EPPO (2004) Good plant protection practice PP 2/30 (1) Outdoor solanaceous crops Bulletin OEPP/EPPO Bulletin 34, 79-90;
* EU COM (2016) Recommendation of the Working Group on the Annexes of the Council Directive 2000/29/EC – Section II – Listing of Harmful Organisms as regards the future listing of Verticillium dahlia Kleb.;
* Giménez-Jaime A, Beltrán R, Vicent A, Armengol J & García-Jiménez J 2004 Differential infection of artichoke propagating material grown in Verticillium dahliae infested and noninfested soil. Acta Horticulturae No.660, pp 501-505;
* Ortega A & Pérez S 2007 Aggressiveness of Verticillium dahliae isolates from potato to artichoke. Acta Horticulturae No.730, pp 407-411;
* Temperini A, Ercolani F, Temperini O, Colla G & Saccardo F 2010 Grafting of artichoke (Cynara cardunculus var. scolymus L.). Italus Hortus 17, No.2, pp 72-73;