NAME OF THE ORGANISM: Ditylenchus dipsaci (DITYDI)

GENERAL INFORMATION ON THE PEST

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

Pest category:

Nematoda **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):

Remark for ornamentals:
- Allium: There is a large number of Allium species (and within the species, varieties) that are used as ornamentals.
Therefore it is suggested to include all Allium for ornamental use in the present evaluation.
- Ismene (host plant for D. dipsaci as mentioned in Directive 2000/29/EC) is nowadays named Hymenocallis for cultivated ornamental species and varieties. **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 (1993); Belgium (2007); Bulgaria (1993); Croatia (1996); Cyprus (1993); Czech Republic (1994); Denmark (1993); Estonia (1994); Finland (1993); France (2010); Germany (2014); Greece (1996); Hungary (2001); Ireland (1998); Italy (1992); Italy/Sicilia (2002); Latvia (2013); Lithuania (1998); Malta (1995); Netherlands (2015); Poland (2012); Portugal (1992); Portugal/Azores (1994); Romania (2011); Slovakia (2007); Slovenia (2003); Spain (2007); Sweden (1993); United Kingdom (1993); United Kingdom/England (1994); United Kingdom/Scotland (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: Allium (1ALLG) for the Ornamental sector.

Origin of the listing:

Ornamental SEWG
Plants for planting:

Plants for planting (including seeds and bulbs) **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):**

Yes
Conclusion:

Candidate

Justification:

A literature and Google search for species of Allium being used as an ornamental plant, as opposed to a vegetable plant, did not locate any specific references. For Allium species used as vegetable crop, more information is available on the pathway. E.g. transmission of D. dipsaci from infested seed to young seedlings for transplanting is well established and planting nematode-free transplants and onion sets is recognized as an important control practice for this pest. Other potential sources of infection are nematode-infested soil, infested debris and infested weeds. Field control can be by rotation, soil solarization or resistant cultivars, however chemical treatments of soil are not economic for large areas (CABI, 2015).
There is a large number of Allium species (and within the species, varieties) that are used as ornamental (e.g. search for 'Allium' on the following database: <http://www.internationalplantnames.com/HTML/English/index_zoek.htm>). The Dutch Flowerbulb Inspection Service BKD has included all ornamental Alliums in their inspection with the same standards as the other ornamental flower bulbs on which D. dipsaci is currently regulated. It is suggested to consider that all Allium species, with ornamental varieties, are host plants and are a significant pathway compare to other pathways when suitable control measures are carried out for the alternative inoculum sources. **5 - Economic impact:**
Are there documented reports of any economic impact on the host?

No
Justification:

Documentation is only available on Allium species used as vegetable propagating material. Allium belongs tot the family of Amaryllidaceae.
Symptoms of infestation in Amaryllidaceae are similar to those in Narcissus spp.; for example, Galanthus spp. show swellings on their leaves and concentric, brown rings in bulbs (IPPC, 2016).
What is the likely economic impact of the pest irrespective of its infestation source in the absence of phytosanitary measures? (= official measures)

Medium
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?

No
Conclusion:

Candidate
Justification:

Experts considered that the evaluation could be extrapolated from vegetable Allium species and experiences of the Dutch Flowerbulb Inspection Service. They commented that there is probably some variation in susceptibility depending on the species. **6 - Are there feasible and effective measures available to prevent the presence of the pest on the plants for planting at an incidence above a certain threshold (including zero) to avoid an unacceptable economic impact as regards the relevant host plants?**

Yes

Conclusion:

candidate
Justification:

 **7- Is the quality of the data sufficient to recommend the pest to be listed as a RNQP?**

Yes

Conclusion:

Candidate
Justification:

 **CONCLUSION ON THE STATUS:**

Recommended for listing as an RNQP, based on data from vegetable Allium, even though there may be some variation in terms of susceptibility depending on the species. **8 - Tolerance level:**
Is there a need to change the Tolerance level:

Yes
Proposed Tolerance levels:

Zero tolerance based on visual examination. **9 - Risk management measures:**
Is there a need to change the Risk management measure:

Yes
Proposed Risk management measure:

(a) The plants have been inspected and no symptoms of Ditylenchus dipsaci have been observed on the lot since the beginning of the last complete cycle of vegetation;
or
(b) The bulbs are found substantially free from symptoms of Ditylenchus dipsaci and packed for sale to the final consumer. **REFERENCES:**

* CABI (Centre for Agricultural Bioscience International) (2015). Online. Datasheets Ditylenchus dipsaci (stem and bulb nematode). Invasive species compendium. CABI, Wallingford, UK. Available from <http://www.cabi.org/isc/datasheet/19287>;
* 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 Ditylenchus dipsaci (Kuhn) Filipvejev;