NAME OF THE ORGANISM: Botrytis cinerea (BOTRCI)

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: Oil and fibre plants sector

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

* Candidate: Oil and fibre plants sector

Justification (if necessary):
 
Remark on taxonomy: According to the International Commission of the Taxonomy of Fungi, the list of plant pathogenic fungi (posted 08/25/2015) by the International Subcommission for the Taxonomy of Phytopathogenic Fungi was updated (<http://www.fungaltaxonomy.org/index.php/download_file/view/132/1/>). According to this list the appropriate name should be Botrytis cinerea. **2 – Status in the EU:**
   
Is this pest already a quarantine pest for the whole EU?
 
No  
Presence in the EU:
 
Yes  
Conclusion:
 
candidate  
Justification (if necessary):
 
This pest is frequent, present worldwide.

HOST PLANT N°1: Linum usitatissimum (LIUUT) for the Oil and fibre plants sector.

Origin of the listing:
 
RNQP Questionnaire  
Plants for planting:
 
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):**
 
Yes 
Conclusion:
 
Candidate  
 
Justification:
 
Botrytis spp. is listed in 2002/57 with a threshold, however no references to other species of Botrytis were found affecting Linum usitatissimum.  
Botrytis cinerea (grey mould) is a worldwide, ubiquitous fungus with a wide host range of herbaceous annual and perennial plants causing a primary and secondary rot, especially after damage or conditions of high humidity. Sclerotia and conidia are formed on fallen fruit and plant debris from which wind-borne ascospores and condia are released into the air to infected new plant material of many species. Botrytis cinerea was not specifically listed as being found on flax seed during a survey of genebank seed in Romania, though report unclear (Plăcintă & Murariu, 2016). However it was found as one of the most often-isolated species in seeds in Poland (Pristchepa et al., 2006). B. cinerea is also known on linseed in the UK where, (with two other pathogens), it is carried in the seed coat in the form of resting hyphae and is quickly activated on germination. A seed testing method has been published (ISTA 2017). In the absence of control measures it can reduce germination, crop vigour and yield though its relative importance was not separated from the two other pathogens. The most effective method of control is by seed treatment (Mercer & Hardwick, 1991). Although the pathogen is ubiquitous the view of the SEWG was that the presence on the seed is a pathway that directly impact the germination and crop establishment compared to pest free seed, or seed which has been treated against the pest. **5 - Economic impact:**  
Are there documented reports of any economic impact on the host?
 
Yes  
Justification:
 
In spring linseed, the predominant disease was grey mould (Botrytis cinerea) in wet years in UK (Perryman & Fitt, 2000). In flax in UK, Botrytis cinerea was common higher up the stem and on the seed head and caused destruction of the integrity of the cellulose fibres (Brown & Mercer, 1986).  
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:
 
 **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:
 
a) Laboratory tests according to ISTA Methods;  
b) treatment of seeds with registered plant protection products. **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. Although the pathogen is ubiquitous the view of the SEWG was that the presence on the seed has a significant economic impact on the germination and crop establishment compared to pest free seed, or seed which has been treated against the pest. **8 - Tolerance level:**  
Is there a need to change the Tolerance level:
 
No  
Proposed Tolerance levels:
 
Basic and certified material:  
(a) Seed treatment authorised for use against Botrytis cinerea has been applied;  
or  
(b) Not more than 5% of seed affected with Botrytis cinerea based on laboratory test of a representative sample. **9 - Risk management measures:**  
Is there a need to change the Risk management measure:
 
No  
Proposed Risk management measure:
 
Measures do not need to be specified for non-treated seeds (see defined threshold). **REFERENCES:**

* Brown AE, Mercer PC (1986) Root-rot pathogens of flax and microbial retting. Annual Report on Research and Technical Work of the Department of Agriculture for Northern Ireland 1985, 133-134;
* ISTA (2017) 7‑007: Detection of Alternaria linicola, Botrytis cinerea and Colletotrichum lini in Linum usitatissimum (flax) seed. Available at: <http://www.seedtest.org/upload/cms/user/2017-SH-7-007.pdf>;
* Mercer PC & Hardwick NV (1991) Control of seed-borne diseases of linseed. Aspects of Applied Biology 28, 71-77;
* Perryman SAM & Fitt BDL (2000) Effects of diseases on the growth and yield of spring linseed (Linum usitatissimum), 1988-1998. Annals of Applied Biology 136, 197-207;
* Plăcintă DD & Murariu D (2016) Fungus evaluation from seeds germplasm before medium and long term storage. Cercetări Agronomice în Moldova 49, 71-82;
* Pristchepa L, Voitka D, Kasperovich E & Stepanova N (2006) Influence of Trichodermin-BL on the decrease of fiber flax infection by diseases and the improvement of ITS production quality. Journal of Plant Protection Research 46, 97-102;