NAME OF THE ORGANISM: Pseudomonas syringae pv. lachrymans (PSDMLA)

GENERAL INFORMATION ON THE PEST

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

Pest category:

Bacteria **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?

Yes
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
Conclusion:

candidate
Justification (if necessary):

The pest is present in Bulgaria, Czechoslovakia, Denmark, France, Germany, Greece, Hungary, Italy, Netherlands, Poland, Romania and UK (CABI, 1987)

HOST PLANT N°1: Cucurbita pepo (Cucumis pepo) (CUUPE) 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):**

Yes
Conclusion:

Candidate

Justification:

Angular leaf spot is the most widespread bacterial disease of cucurbits (Compendium of Cucurbit Diseases, 1996). Natural hosts of the bacterium include Cucumis sativus, C. melo, C. melo var. indorus, C. anguria, C. dipsaceus, Citrullus lanatus, Cucurbita maxima, C. pepo var. melopepo, C. pepo var. medullosa, C. pepo var. condensa, Bryonopsis laciniosa, Lagenaria leucantha and Luffa acutangula (Bradbury, 1986). It is most serious in cucumbers grown in warms and humid conditions. Infection first appears on leaves, then infecting fruit and contaminating seed. The pathogen is seed-borne and infestation occurs beneath the seed coat so infecting the cotyledons and hence spreading to other plants. Therefore seed and young plants are a pathway. Control can consist of outside rotation for 2 years, cultivation when dry, copper sprays and resistant cvs. If these methods are effectively carried out (or being grown indoors), then young plants for planting can be considered the main pathway (Compendium of Cucurbit Diseases, 1996). **5 - Economic impact:**
Are there documented reports of any economic impact on the host?

Yes
Justification:

It is a serious pathogen of cucurbits, causing cosmetic damage to skin, disfiguring fruit and causing a fruit rot (Compendium of Cucurbit Diseases, 1996). Under natural conditions, a severe out break of angular leaf spot of cucumbers in Michigan, USA was reported to have affected squash (Baht et al., 2010).
What is the likely economic impact of the pest irrespective of its infestation source in the absence of phytosanitary measures? (= official measures)

Major
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:

 **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:**

Not recommended for listing as an RNQP: This pest/host/intended use combination meets all the criteria for RNQP status [and could also be considered for seed, if this is the major pathway by which young plants become infected]. However, the requirement for absence of visual symptoms on the traded material (current general 'Substantially free from' requirement in the EU) is considered to be sufficient for solanaceous vegetable hosts. **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:**

* Bhat NA, Bhat KA, Zargar MY, Teli MA, Nazir M & Zargar SM (2010) Current status of angular leaf spot (Pseudomonas syringae pv. lachrymans) of cucumber: a review. International Journal of Current Research 8, 1-11;
* CABI (1987) Distribution map for Pseudomonas syringae pv. lachrymans (E.F. Smith & Bryan) Young, Dye & Wilkie. Distribution Maps of Plant Diseases. Map No. 355 (Edition 4);
* Compendium of Cucurbit Diseases (1996) First edition. The American Phytopathological Society;