

RNQP Project

Vegetables SEWVG (Sector Expert Working Groups)- Paris, 4-7/7/17

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Vegetable Sector - EWG

- **7 Expert – Bulgaria, Germany, Czech Republic, Netherlands, Italy, France, Israel.**
- **Representatives from EPPO and from the European Commission.**



RNQP definition

RNQP defined in ISPM 16 and ISPM 21 as a non-quarantine pest whose presence in plants for planting affects the intended use of those plants with an economically unacceptable impact and which is therefore regulated within the territory of the importing contracting party

"Article 36 of EU Regulation 2016/2031 defines RNQP as pest with a clear taxonomic identity, present in the European Union territory, transmitted mainly through specific plants for planting, whose presence has an unacceptable economic impact as regards the intended use, and where feasible and effective measures are available".

Aim of the RNQP concept

Limit the economic impact on the intended use (not to prevent introduction or spread)

Sector - EWG

Establish 6 sector-EWG to apply the methodology in relation to different plants and crop groups.

<i>3 + 7 experts</i>	<i>8 + 1 experts</i>	<i>9 experts</i>	<i>6 experts</i>	<i>6 experts</i>	<i>5 experts</i>
'Seed potato' (EPPO Panel)	'Forestry' (EPPO Panel)	'Fruits (including hops) and Vine'	'Agricultural species'	'Vegetable plants'	'Ornamentals'

half a day webinar is organized before each SEWG to present the methodology, to discuss answers to the questionnaires, and to prepare for the application of the methodology.

A1 – Is the pest already listed in a PM4 standard on the concerned host plant? [by EPPO]

Yes: Recommended for the RNQP status – based on PM4



No

Continue

TAXONOMY

B1 - Is the organism clearly a single taxonomic entity and can it be adequately distinguished from other entities of the same rank? [by EPPO]

No



B2 - Is the pest defined at the species level or lower*? [by EPPO]

No

B3 - 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 (If Yes, please list the species)? [by EPPO, using Q.]



No

Continue

B4 - Is it justified that the pest is listed at a taxonomic rank below* species level? [by SEWGs]

Yes



STATUS IN EU PATHWAYS

C1 - Is this pest already a quarantine pest for whole EU? [by EPPO]

Yes



No

C2 - Is this pest present in the EU? [by EPPO]

No



Yes

Continue

D1 - Are the listed plants for planting the main pathway for the pest/host/intended use combination?

(to evaluate if it is the "main" pathway, we evaluate if plants for planting is a significant pathway compared to other pathways)

[by EPPO + SEWGs]

No



Yes

Continue

ECONOMIC IMPACT

E1 - Are there documented reports of any economic impact on the host? [by EPPO, using Q.]



No

Yes

E2 - What is the likely economic impact of the pest irrespective of its infestation source in the absence of phytosanitary measures (= official measures)? [by SEWGs]

Minimal, Minor, Medium, Major, Massive

E3 - 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? [by SEWGs, using Q.]

Yes

No

Continue

E4 - Is there unacceptable economic impact caused to other hosts (or the same host with a different intended use) produced at the same place of production due to the transfer of the pest from the named host plant for planting? [by SEWGs]



No

Yes

Continue

RMM

F1 - 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? [by SEWGs]

No



Yes

Continue

DATA QUALITY

G1 - Is the quality of the data sufficient to recommend the pest to be listed as a RNQP?? [by SEWGs]

Yes: Recommended for the RNQP status – based on data

No: Recommended for the RNQP status – by default

*Clavibacter michiganensis subsp.
michiganensis*



**Tomato, pepper - seeds & plants intended
for planting**

Cmm - important facts

- **Bacterial canker of tomato.**
- **The main host of economic importance is tomato.**
- **The bacterium is located in the xylem vessels and blocks the vessels by bacterial mass and by tissue disintegration.**



stem canker



wilting of leaves and plants



- **Primary infection** of tomato plants originates from **contaminated seed**.
- In the field, canker bacteria **can spread** from plants with primary infection to nearby plants **by water splash, movement of machinery, or by people working when the field is wet**.
- populations of the bacteria **persist in the soil** on crop residue **may serve as a source to initiate the disease in the following season on new plantings**.

A – PM4 (qualification question)

A1 – Is the pest already listed in a PM4 (Production of healthy plants for planting) standard on the concerned host plant?



Yes: Recommended for the RNQP status – based on PM4

No



Evaluation continue

B – Taxonomy (elimination questions)

B1 - Is the organism clearly a single taxonomic entity and can it be adequately distinguished from other entities of the same rank?

No



Yes



B2 - Is the pest defined at the species level or lower*?

Remark (B2): According to ISPM21, the ‘**identity of the pest**’ and the ‘**taxonomic listing of hosts**’ should be generally the species level. The use of a higher or lower taxonomic level should be supported by a scientifically justification.

B2 - Is the pest defined at the species level or lower?

No



Yes



B3 - Can listing of the pest at a taxonomic level higher than species be supported by scientific reasons



Not relevant for cmm

B4 - Is it justified that the pest is listed at a taxonomic rank below species level?

Yes



Evaluation continue

- ***C. michiganensis* is subdivided into 8 subspecies.**
- **All strains pathogenic on tomatoes are grouped in the subspecies *michiganensis*.**
- **This pest is a clear, distinguished taxonomic entity.**



Evaluation continue

C – Status in the EU (elimination questions)

C1 - Is this pest already a quarantine pest for whole EU(listed in Annex I and Annex II of Council Directive 2000/29/EC)?

Yes


No *



(Although pest is listed in Annex II, it was chosen by the EU for the evaluation for RNQP before deciding to remove the pest from the list of quarantine pest).

C2 - Is this pest present in the EU?

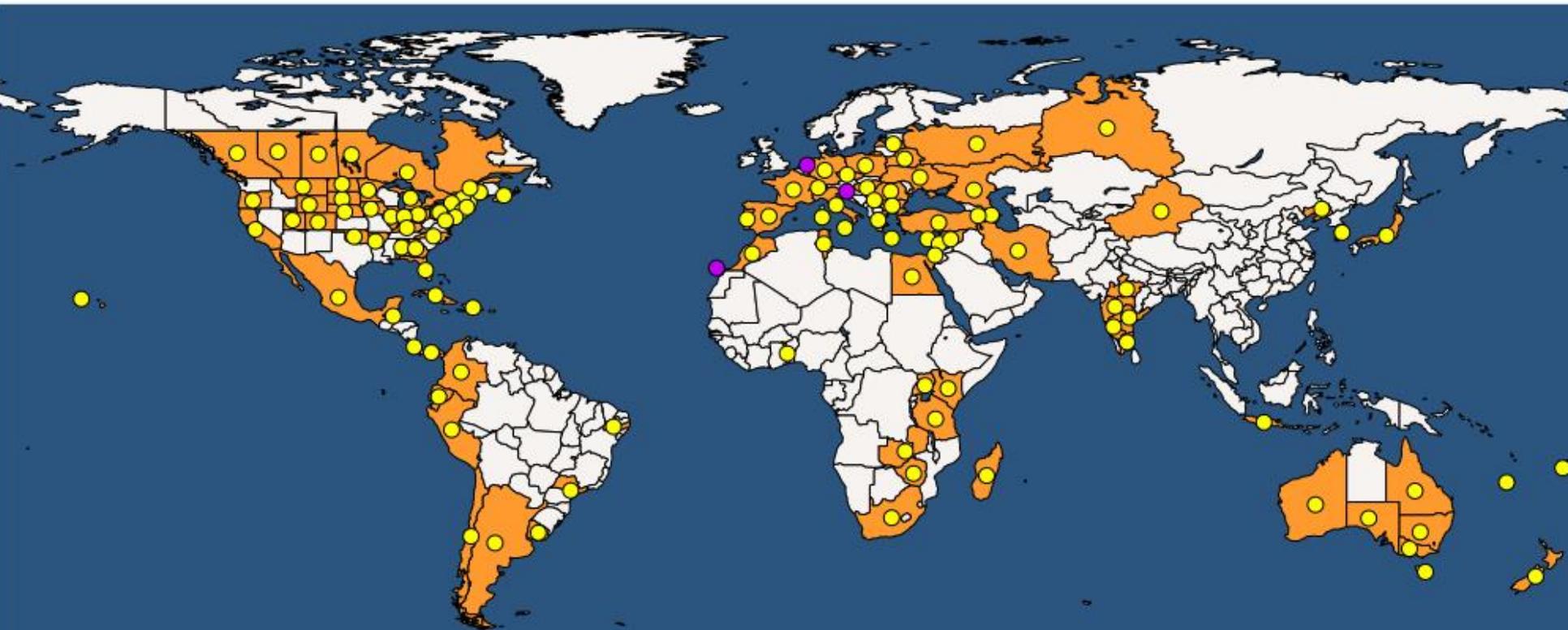
No



Yes- Data of the presence in the EU are available in EPPO Global Database



Evaluation continue



Clavibacter michiganensis subsp. *michiganensis* (CORBMI)

2018-05-04
(c) EPPO <http://www.eppo.int>

Legend:

Present 

Transient 

D – Pathways (elimination questions)

D1 - Are the listed plants for planting the main pathway for the pest/host/intended use combination?

Justification is needed:

(to evaluate if it is the “main” pathway, we evaluate if plants for planting is a significant pathway compared to other pathways)

Note: The relative importance of plants for planting as a pathway should only be considered in relation to areas where the pest is present, not for movement into areas which are free from the pest.

No
↓
✘

Yes
↓



Evaluation continue

Cmm – Tomato (seeds)



- The pathogen is **seed borne** and **seed is considered to be the major means of long- distance dispersal.**
- The pathogen can **survive for years on seed** and a low inoculum dose can result in **transmission from seed to seedling.**
- Control should be mainly based on prevention and exclusion.



Conclusion – seeds may be an important pathway of Cmm for a clean and pathogen free place of production, especially for indoor cultivation, even if the pest is present in the area.

Cmm – Tomato (plants intended for planting)



- **Seedling grown from contaminated seeds can also be a primary infection source** and can serve as a means of long-distance dispersal.
- Seedling grown from contaminated seeds can release **high densities of bacteria.**



Conclusion – Plants for planting may be an important pathway of Cmm for a clean and pathogen free place of production, especially for indoor cultivation, even if the pest is present in the area.

Cmm – pepper (seeds& plants for planting)



- Although the pathogen is seed borne and seed considered to be a major means of long-distance dispersal, and seedling grown from contaminated seeds can also be a primary infection source and can serve as a means of long-distance dispersal **there are not enough evidence for the transmission with pepper seeds .**



Doubts ?

E – Economic impact(elimination questions)

E1 - Are there documented reports of any economic impact on the host?

*Remark : To assess [E1], an evaluation based on the "worst case" scenario is proposed.
Impacts of vectors pathogens combinations may need to be considered as well as direct impacts.*



Cmm – Tomato



The pathogen is considered to be one of the most important bacterial pathogens of tomato.

Infections often result in high yield losses (50-100%).

Cmm – Pepper



The damage and economic losses in pepper are relatively limited compared to the damage that exists in tomato.

E2 - What is the likely economic impact of the pest irrespective of its infestation source in the absence of phytosanitary measures (= official measures)?

Minimal, Minor, Medium, Major, Massive



Cmm – Tomato



MAJOR



Cmm – Pepper



MINOR

E3 – 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?



Yes- cmm (Pepper)



No- cmm (Tomato)



Evaluation continue

E4 - Is there unacceptable economic impact caused to other hosts (or the same host with a different intended use) produced at the same place of production due to the transfer of the pest from the named host plant for planting ?

No



Not candidate

Justification regarding Cmm on Pepper - Not candidate for RNQP

- The damage and **economic losses in pepper** are relatively **limited** compared to the damage that exists in the tomato.
- Pepper isolates showed **limited pathogenicity on tomato** (therefore it was suggested that the pepper isolates may represent a separate Cmm population)
- We can assumed that bacterial presence in the pepper will not have much effect and **will not cause damage to the tomato.**

F – Risk management measures (elimination question)



F1 - 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?

No



Yes- Control is mainly based on seed treatments and cultivation measures. An effective control requires management of the entire production chain.



Evaluation continue

G – Data quality

G1 - Is the quality of the data sufficient to recommend the pest to be listed as a RNQP?



No: Recommended for the RNQP status – by default



Yes: Recommended for the RNQP status – based on data

Proposed management measure

Tomato seeds – No need to change the current measures in Council Directive 2000/29/EC (except for the possibility of providing an equivalent method for Acid extraction which is not available for organic production).

Zero tolerance based on area free, visual examination during growth or seed testing.

Tomato plant for planting – The plants have been grown from seeds which comply with the requirements laid down and have been maintained free from infection by appropriate hygiene measures.



CHALLENGE

- Heterogeneous group of expert – Bacteriologist, virologist, expert in PRA, in certification schemes, in diagnostics.
- Learn the methodology by presentations presented during the webinar.
- Independent work of the experts before the meeting – each expert had to apply the methodology on about 8 pests with different combinations (not all of them under his expertise).
- Difference between countries (importance of growth, presence of a pest/vector, certification scheme) led to different opinion and difficulty in decision in certain cases.
- The need for thinking not in a regular quarantine concept.

