NAME OF THE ORGANISM: Pseudomonas syringae pv. persicae (PSDMPE)

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: Fruits (including hops) sector, Ornamental sector

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

Yes
Conclusion:

* Candidate: Fruits (including hops) sector, Ornamental sector

Justification (if necessary):

It is suggested that P. s. pv. persicae, a distinct genetic clade, is responsible for bacterial die-back in peach (EFSA PLH, 2014). This is sufficient to justify a listing at a level below the species level. **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):

Data of the presence of this pest on the EU territory are available in EPPO Global Database (<https://gd.eppo.int/>). The pest occurs in Portugal, France, Germany, and it has been found in Croatia, France and UK (EU COM, 2014). Remark: There is a moderate uncertainty about the distribution of P. s. pv. persicae in the EU because of the limited number of surveys, the lack of rapid detection tools, and the non specific symptoms (cf. similar symptoms caused by the other Pseudomonas). It may be much more widespread than officially reported (EU COM, 2014).

HOST PLANT N°1: Prunus persica (PRNPS) for the Fruits (including hops) sector.

Origin of the listing:

IIA2AWG
Plants for planting:

Plants intended for planting, other than 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:

Plants for planting are a pathway for introduction and spread of this pest. Long-distance spread is expected to occur via infected planting material. Short-distance dispersal of epiphytic populations of P. s. pv. persicae may occur via splash dispersal and in wind-driven rain, in particular during autumn when population densities on leaves are high. It is likely that short-distance spread can occur during pruning (EFSA, 2014). **5 - Economic impact:**
Are there documented reports of any economic impact on the host?

Yes
Justification:

Under specific conditions, the impact of infections with P. s. pv. persicae can be high. Many trees were destroyed in the central Rhône valley in France in 1985 (P. s. pv. persicae killed more than one million peach trees in France that were under five years of age). However the current impact of P. s. pv. persicae on peach production in France is low, probably due to the absence of peach orchards where the environmental conditions are extremely favorable to the disease (EFSA, 2014).
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:

Symptoms of P. syringae pv. persicae can be confused with those caused by other Pseudomonas pathogens, i.e. P. s. pv. syringae, P. s. pv. mors-prunorum and P. viridiflava (Scortichini & Morone, 1997; EFSA PLH, 2014). Currently no validated molecular detection method is available to allow rapid detection (EFSA PLH, 2014). For P. persica and P. salicina, Commission Implementing Directive 2014/98 includes health requirements concerning different pathovars of Pseudomonas syringae. Freedom of the planting material of different categories is based on visual inspection and specific testing in case of any suspicion. P. syringae pv. persicae could be included in Annex I part A of 2014/98. Symptomatic plants and plants giving positive results in any test could be removed and destroyed, irrespective of the pathovar. **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. **8 - Tolerance level:**
Is there a need to change the Tolerance level:

No
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:

Other pathovars of Pseudomonas syringae should be regulated in the same way.
- Non-certified material (‘CAC’):
(A) Derived from mother plants which have been inspected and found free from symptoms of Pseudomonas syringae pv. persicae.
AND
(B) (a) Plants produced in areas known to be free from Pseudomonas syringae pv. persicae;
or
(b) Site of production found free from Pseudomonas syringae pv. persicae over the last complete growing season by visual inspection and any symptomatic plants in the immediate vicinity rogued out and destroyed immediately;
or
(c) No more than 2% of plants in the lot showing symptoms during inspections at appropriate times during the last growing season, and those plants and any symptomatic plants in the immediate vicinity rogued out and destroyed immediately.

- Pre-basic, Basic and Certified: no additional measures to be considered.
Justification (if necessary):

Symptoms are clearer for Pseudomonas syringae pv. persicae than for ‘Ca. Phytoplasma prunorum’. The pest can be water splashed. **REFERENCES:**

* EFSA Panel on Plant Health (PLH) (2014) Scientific Opinion on the pest categorisation of Pseudomonas syringae pv. persicae (Prunier et al.) Young et al. EFSA Journal 2014;12(10):3855, 26 pp. doi:10.2903/j.efsa.2014.3855". <http://www.efsa.europa.eu/en/efsajournal/doc/3855.pdf>;
* EU COM (2014) 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 Pseudomonas syringae pv. persicae;

HOST PLANT N°2: Prunus persica (PRNPS) for the Ornamental sector.

Origin of the listing:

IIA2AWG
Plants for planting:

Plants intended for planting, other than 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:

Plants for planting are a pathway for introduction and spread of this pest. Long-distance spread is expected to occur via infected planting material. Short-distance dispersal of epiphytic populations of P. s. pv. persicae may occur via splash dispersal and in wind-driven rain, in particular during autumn when population densities on leaves are high. It is likely that short-distance spread can occur during pruning (EFSA, 2014). **5 - Economic impact:**
Are there documented reports of any economic impact on the host?

No
Justification:

No impacts are reported for an ornamental use. Experts considered that it was not clear whether there are ornamental P. persica which does not bear fruits.
What is the likely economic impact of the pest irrespective of its infestation source in the absence of phytosanitary measures? (= official measures)

Minimal
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
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?

Yes
Conclusion:

Candidate
Justification:

Experts concluded that ornamentals could have an indirect economic impact on fruit crops produced at the same place of production. **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 potential indirect economic impacts on fruit crops at the same place of production. **8 - Tolerance level:**
Is there a need to change the Tolerance level:

No
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) Plants produced in areas known to be free from Pseudomonas syringae pv. persicae;
or
(b) Site of production found free from Pseudomonas syringae pv. persicae over the last complete growing season by visual inspection and any symptomatic plants in the immediate vicinity rogued out and destroyed immediately;
or
(c) No more than 2% of plants in the lot showing symptoms during inspections at appropriate times during the last growing season, and those plants and any symptomatic plants in the immediate vicinity rogued out and destroyed immediately.
Justification (if necessary):

Experts recommended extrapolating measures from the fruit sector. **REFERENCES:**

* EU COM (2014) 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 Pseudomonas syringae pv. persicae;
* EFSA Panel on Plant Health (PLH) (2014) Scientific Opinion on the pest categorisation of Pseudomonas syringae pv. persicae (Prunier et al.) Young et al. EFSA Journal 2014;12(10):3855, 26 pp. doi:10.2903/j.efsa.2014.3855". <http://www.efsa.europa.eu/en/efsajournal/doc/3855.pdf>;

HOST PLANT N°3: Prunus salicina (PRNSC) for the Fruits (including hops) sector.

Origin of the listing:

IIA2AWG
Plants for planting:

Plants intended for planting, other than 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:

Plants for planting are a pathway for introduction and spread of this pest. Long-distance spread is expected to occur via infected planting material. Short-distance dispersal of epiphytic populations of P. s. pv. persicae may occur via splash dispersal and in wind-driven rain, in particular during autumn when population densities on leaves are high. It is likely that short-distance spread can occur during pruning (EFSA, 2014). **5 - Economic impact:**
Are there documented reports of any economic impact on the host?

Yes
Justification:

Japanese plum (P. salicina) is less susceptible (compared to P. persica). In Japanese plum, infections rarely cause symptoms other than tip die-back. Occasionally, death of shoots or leaf spotting is observed (EFSA, 2014).
What is the likely economic impact of the pest irrespective of its infestation source in the absence of phytosanitary measures? (= official measures)

Minor
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:

Symptoms of P. syringae pv. persicae can be confused with those caused by other Pseudomonas pathogens, i.e. P. s. pv. syringae, P. s. pv. mors-prunorum and P. viridiflava (Scortichini & Morone, 1997; EFSA PLH, 2014). Currently no validated molecular detection method is available to allow rapid detection (EFSA PLH, 2014). For P. persica and P. salicina, Commission Implementing Directive 2014/98 includes health requirements concerning different pathovars of Pseudomonas syringae. Freedom of the planting material of different categories is based on visual inspection and specific testing in case of any suspicion. P. syringae pv. persicae could be included in Annex I part A of 2014/98. Symptomatic plants and plants giving positive results in any test could be removed and destroyed, irrespective of the pathovar. **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. **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:

Other pathovars of Pseudomonas syringae should be regulated in the same way.
- Non-certified material (‘CAC’):
(A) Derived from mother plants which have been inspected and found free from symptoms of Pseudomonas syringae pv. persicae.
AND
(B) (a) Plants produced in areas known to be free from Pseudomonas syringae pv. persicae;
or
(b) Site of production found free from Pseudomonas syringae pv. persicae over the last complete growing season by visual inspection and any symptomatic plants in the immediate vicinity rogued out and destroyed immediately;
or
(c) No more than 2% of plants in the lot showing symptoms during inspections at appropriate times during the last growing season, and those plants and any symptomatic plants in the immediate vicinity rogued out and destroyed immediately.

- Pre-basic, Basic and Certified: no additional measures to be considered.
Justification (if necessary):

Symptoms are clearer for Pseudomonas syringae pv. persicae than for ‘Ca. Phytoplasma prunorum’. The pest can be water splashed. **REFERENCES:**

* EFSA Panel on Plant Health (PLH) (2014) Scientific Opinion on the pest categorisation of Pseudomonas syringae pv. persicae (Prunier et al.) Young et al. EFSA Journal 2014;12(10):3855, 26 pp. doi:10.2903/j.efsa.2014.3855". <http://www.efsa.europa.eu/en/efsajournal/doc/3855.pdf>;
* EU COM (2014) 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 Pseudomonas syringae pv. persicae;

HOST PLANT N°4: Prunus salicina (PRNSC) for the Ornamental sector.

Origin of the listing:

IIA2AWG
Plants for planting:

Plants intended for planting, other than 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:

Plants for planting are a pathway for introduction and spread of this pest. Long-distance spread is expected to occur via infected planting material. Short-distance dispersal of epiphytic populations of P. s. pv. persicae may occur via splash dispersal and in wind-driven rain, in particular during autumn when population densities on leaves are high. It is likely that short-distance spread can occur during pruning (EFSA, 2014). **5 - Economic impact:**
Are there documented reports of any economic impact on the host?

No
Justification:

No impacts are reported for an ornamental use.
What is the likely economic impact of the pest irrespective of its infestation source in the absence of phytosanitary measures? (= official measures)

Minimal
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
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?

Yes
Conclusion:

Candidate
Justification:

Experts concluded that ornamentals could have an indirect economic impact on fruit crops produced at the same place of production. **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 potential indirect economic impacts on fruit crops at the same place of production. **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) Plants produced in areas known to be free from Pseudomonas syringae pv. persicae;
or
(b) Site of production found free from the Pseudomonas syringae pv. persicae over the last complete growing season by visual inspection and any symptomatic plants in the immediate vicinity rogued out and destroyed immediately;
or
(c) No more than 2% of plants in the lot showing symptoms during inspections at appropriate times during the last growing season, and those plants and any symptomatic plants in the immediate vicinity rogued out and destroyed immediately.
Justification (if necessary):

Experts recommended extrapolating measures from the fruit sector. **REFERENCES:**

* EU COM (2014) 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 Pseudomonas syringae pv. persicae;
* EFSA Panel on Plant Health (PLH) (2014) Scientific Opinion on the pest categorisation of Pseudomonas syringae pv. persicae (Prunier et al.) Young et al. EFSA Journal 2014;12(10):3855, 26 pp. doi:10.2903/j.efsa.2014.3855". <http://www.efsa.europa.eu/en/efsajournal/doc/3855.pdf>;