NAME OF THE ORGANISM: Citrus tristeza virus (European isolates) (Citrus tristeza virus) (CTV000)

GENERAL INFORMATION ON THE PEST

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

Pest category:

Viruses and viroids **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?

Not relevant
Conclusion:

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

Justification (if necessary):

Reliable detection and identification tests are available. However, European isolates cannot be discriminated from non-European ones on the basis of their molecular properties. A combination of biological, molecular and, possibly, serological data are needed for a conclusive characterisation of the genetic and pathogenic features of a CTV isolate (EU COM, 2016). **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):

Croatia (2009); Cyprus (2014); Greece (2014); Greece/Kriti (2012); Italy (2014); Italy/Sicilia (2016); Portugal (2013); Portugal/Madeira (1998); Spain (2011)
Conclusion:

candidate
Justification (if necessary):

This pest is a candidate for the RNQP status according to the IIA2AWG. Non-European isolates are regulated in Annex IIAI of the plant health Directive 2000/29/EC. 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: Citrus (1CIDG) 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?**

Yes
Conclusion:

Qualified

Justification (if necessary):

Production of certified pathogen-tested trees and rootstocks of Citrus, Poncirus, Fortunella and their hybrids are covered by EPPO PM 4/12 (1) Standard. **CONCLUSION ON THE STATUS:**

Recommended for listing as an RNQP - based on EPPO PM 4 Standard, except for strains qualifying for the quarantine status, if it is possible depending on the tests available to do such a distinction. **8 - Tolerance level:**
Is there a need to change the Tolerance level:

No
Proposed Tolerance levels:

Zero tolerance approach, based on visual examination and/or testing. **9 - Risk management measures:**
Is there a need to change the Risk management measure:

Yes
Proposed Risk management measure:

Non-certified material (‘CAC’):
(A) Derived from mother plants which have been tested within the previous 3 years and found free from Citrus tristeza virus;
AND
(B) (a) Plants produced in areas known to be free from Citrus tristeza virus;
or
(b) Site of production found free from Citrus tristeza virus over the last complete growing season by testing of a representative sample of the plants at the appropriate time;
or
(c) Site of production under physical protection from vectors, and found free from Citrus tristeza virus over the last complete growing season by testing of a representative sample of the plants at the appropriate time;
or
(d) [in cases where there is a positive test result in a lot] All plants have been tested individually and no more than 2% of those plants were found positive, the plants tested positive have been rogued out and destroyed immediately.

Pre-basic, basic and certified material, additional measures to be considered include:
• Measures to control the vector or reduce transmission;
• Physical protection of mother plants;
• Testing of mother plants.
Justification (if necessary):

Visual examination was not considered as being sufficient for this pest. Options (b) and (c) are very similar but the sampling intensity may be different. The fruit SEWG gave the indication of a minimum testing of 0,1% of the plants for an outdoor site of production and 0,05% of the plants under physical protection from vectors. However the coreHEWGplus recommended using 'a representative sample' rather than a specific percentage that should depend on the confidence level and the size of the sample (see ISPM 31). **REFERENCES:**

* EFSA Panel on Plant Health (PLH) (2014) Scientific Opinion on the pest categorisation of Citrus tristeza virus. EFSA Journal 2014;12(12):3923, 32 pp. doi:10.2903/j.efsa.2014.3923 <http://www.efsa.europa.eu/en/efsajournal/doc/3923.pdf>;
* 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 Citrus tristeza virus (European isolates);

HOST PLANT N°2: Citrus (1CIDG) 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?**

Yes
Conclusion:

Qualified

Justification (if necessary):

The interest in Citrus and related genera as ornamental plants has increased in recent years, and many varieties and hybrids are suitable for this purpose. The EPPO PM 4/12 Standard for Citrus includes all species of Citrus, Poncirus, Fortunella and their hybrids, so it is assumed it can be recommended for the RNQP status for ornamental use based on the EPPO PM 4 Standard, and so this analysis does not need to continue. **CONCLUSION ON THE STATUS:**

Recommended for listing as an RNQP - based on EPPO PM 4 Standard, except for strains qualifying for the quarantine status, if it is possible depending on the tests available to do such a distinction. **8 - Tolerance level:**
Is there a need to change the Tolerance level:

No
Proposed Tolerance levels:

Zero tolerance approach, based on visual examination and/or testing. **9 - Risk management measures:**
Is there a need to change the Risk management measure:

Yes
Proposed Risk management measure:

(A) Derived from mother plants which have been tested within the previous 3 years and found free from Citrus tristeza virus;
AND
(B) (a) Plants produced in areas known to be free from Citrus tristeza virus;
or
(b) Site of production found free from Citrus tristeza virus over the last complete growing season by testing of a representative sample of the plants at the appropriate time;
or
(c) Site of production under physical protection from vectors, and found free from Citrus tristeza virus over the last complete growing season by testing of a representative sample of the plants at the appropriate time;
or
(d) [in cases where there is a positive test result in a lot] All plants have been tested individually and no more than 2% of those plants were found positive, the plants tested positive have been rogued out and destroyed immediately.
Justification (if necessary):

Experts considered that risks of cross-contamination with plants produced for fruit production should be taken into consideration. Therefore same measures than for the fruit sector are proposed. Visual examination was not considered as being sufficient for this pest. Options (b) and (c) are very similar but the sampling intensity may be different. The fruit SEWG gave the indication of a minimum testing of 0,1% of the plants for an outdoor site of production and 0,05% of the plants under physical protection from vectors. However the coreHEWGplus recommended using 'a representative sample' rather than a specific percentage that should depend on the confidence level and the size of the sample (see ISPM 31). **REFERENCES:**

* EFSA Panel on Plant Health (PLH) (2014) Scientific Opinion on the pest categorisation of Citrus tristeza virus. EFSA Journal 2014;12(12):3923, 32 pp. doi:10.2903/j.efsa.2014.3923 <http://www.efsa.europa.eu/en/efsajournal/doc/3923.pdf>;
* 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 Citrus tristeza virus (European isolates);
* Riolo G, Conti F, Tamburino V, D'Anna R, Cavallaro G, Garozzo M & Ricca G (2009) Tristeza of citrus under control in Sicilian nurseries. Informatore Agrario 65 No.40 pp.49-51;
* Santos ARA dos, Souza EH de, Fadini M, Souza FVD, Barbosa C de J, Girardi EA & Soares Filho W dos S (2016) Selection of CTV-tolerant citrus hybrids for ornamental use. Fruits (Paris) 71 No.6 pp.389-398;

HOST PLANT N°3: Citrus hybrids (CIDHX) 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?**

Yes
Conclusion:

Qualified

Justification (if necessary):

Production of certified pathogen-tested trees and rootstocks of Citrus, Poncirus, Fortunella and their hybrids are covered by EPPO PM 4/12 (1) Standard. **CONCLUSION ON THE STATUS:**

Recommended for listing as an RNQP - based on EPPO PM 4 Standard, except for strains qualifying for the quarantine status, if it is possible depending on the tests available to do such a distinction. **8 - Tolerance level:**
Is there a need to change the Tolerance level:

No
Proposed Tolerance levels:

Zero tolerance approach, based on visual examination and/or testing. **9 - Risk management measures:**
Is there a need to change the Risk management measure:

Yes
Proposed Risk management measure:

Non-certified material (‘CAC’):
(A) Derived from mother plants which have been tested within the previous 3 years and found free from Citrus tristeza virus;
AND
(B) (a) Plants produced in areas known to be free from Citrus tristeza virus;
or
(b) Site of production found free from Citrus tristeza virus over the last complete growing season by testing of a representative sample of the plants at the appropriate time;
or
(c) Site of production under physical protection from vectors, and found free from Citrus tristeza virus over the last complete growing season by testing of a representative sample of the plants at the appropriate time;
or
(d) [in cases where there is a positive test result in a lot] All plants have been tested individually and no more than 2% of those plants were found positive, the plants tested positive have been rogued out and destroyed immediately.

Pre-basic, basic and certified material, additional measures to be considered include:
• Measures to control the vector or reduce transmission;
• Physical protection of mother plants;
• Testing of mother plants.
Justification (if necessary):

Visual examination was not considered as being sufficient for this pest. Options (b) and (c) are very similar but the sampling intensity may be different. The fruit SEWG gave the indication of a minimum testing of 0,1% of the plants for an outdoor site of production and 0,05% of the plants under physical protection from vectors. However the coreHEWGplus recommended using 'a representative sample' rather than a specific percentage that should depend on the confidence level and the size of the sample (see ISPM 31). **REFERENCES:**

* EFSA Panel on Plant Health (PLH) (2014) Scientific Opinion on the pest categorisation of Citrus tristeza virus. EFSA Journal 2014;12(12):3923, 32 pp. doi:10.2903/j.efsa.2014.3923 <http://www.efsa.europa.eu/en/efsajournal/doc/3923.pdf>;
* 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 Citrus tristeza virus (European isolates);

HOST PLANT N°4: Citrus hybrids (CIDHX) 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?**

Yes
Conclusion:

Qualified

Justification (if necessary):

The interest in Citrus and related genera as ornamental plants has increased in recent years, and many varieties and hybrids are suitable for this purpose. The EPPO PM 4/12 Standard for Citrus includes all species of Citrus, Poncirus, Fortunella and their hybrids, so it is assumed it can be recommended for the RNQP status for ornamental use based on the EPPO PM 4 Standard, and so this analysis does not need to continue. **CONCLUSION ON THE STATUS:**

Recommended for listing as an RNQP - based on EPPO PM 4 Standard, except for strains qualifying for the quarantine status, if it is possible depending on the tests available to do such a distinction. **8 - Tolerance level:**
Is there a need to change the Tolerance level:

No
Proposed Tolerance levels:

Zero tolerance approach, based on visual examination and/or testing. **9 - Risk management measures:**
Is there a need to change the Risk management measure:

Yes
Proposed Risk management measure:

(A) Derived from mother plants which have been tested within the previous 3 years and found free from Citrus tristeza virus;
AND
(B) (a) Plants produced in areas known to be free from Citrus tristeza virus;
or
(b) Site of production found free from Citrus tristeza virus over the last complete growing season by testing of a representative sample of the plants at the appropriate time;
or
(c) Site of production under physical protection from vectors, and found free from Citrus tristeza virus over the last complete growing season by testing of a representative sample of the plants at the appropriate time;
or
(d) [in cases where there is a positive test result in a lot] All plants have been tested individually and no more than 2% of those plants were found positive, the plants tested positive have been rogued out and destroyed immediately.
Justification (if necessary):

Experts considered that risks of cross-contamination with plants produced for fruit production should be taken into consideration. Therefore same measures than for the fruit sector are proposed. Visual examination was not considered as being sufficient for this pest. Options (b) and (c) are very similar but the sampling intensity may be different. The fruit SEWG gave the indication of a minimum testing of 0,1% of the plants for an outdoor site of production and 0,05% of the plants under physical protection from vectors. However the coreHEWGplus recommended using 'a representative sample' rather than a specific percentage that should depend on the confidence level and the size of the sample (see ISPM 31). **REFERENCES:**

* EFSA Panel on Plant Health (PLH) (2014) Scientific Opinion on the pest categorisation of Citrus tristeza virus. EFSA Journal 2014;12(12):3923, 32 pp. doi:10.2903/j.efsa.2014.3923 <http://www.efsa.europa.eu/en/efsajournal/doc/3923.pdf>;
* 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 Citrus tristeza virus (European isolates);
* Riolo G, Conti F, Tamburino V, D'Anna R, Cavallaro G, Garozzo M & Ricca G (2009) Tristeza of citrus under control in Sicilian nurseries. Informatore Agrario 65 No.40 pp.49-51;
* Santos ARA dos, Souza EH de, Fadini M, Souza FVD, Barbosa C de J, Girardi EA & Soares Filho W dos S (2016) Selection of CTV-tolerant citrus hybrids for ornamental use. Fruits (Paris) 71 No.6 pp.389-398;

HOST PLANT N°5: Fortunella (1FOLG) 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?**

Yes
Conclusion:

Qualified

Justification (if necessary):

Production of certified pathogen-tested trees and rootstocks of Citrus, Poncirus, Fortunella and their hybrids are covered by EPPO PM 4/12 (1) Standard. **CONCLUSION ON THE STATUS:**

Recommended for listing as an RNQP - based on EPPO PM 4 Standard, except for strains qualifying for the quarantine status, if it is possible depending on the tests available to do such a distinction. **8 - Tolerance level:**
Is there a need to change the Tolerance level:

No
Proposed Tolerance levels:

Zero tolerance approach, based on visual examination and/or testing. **9 - Risk management measures:**
Is there a need to change the Risk management measure:

Yes
Proposed Risk management measure:

Non-certified material (‘CAC’):
(A) Derived from mother plants which have been tested within the previous 3 years and found free from Citrus tristeza virus;
AND
(B) (a) Plants produced in areas known to be free from Citrus tristeza virus;
or
(b) Site of production found free from Citrus tristeza virus over the last complete growing season by testing of a representative sample of the plants at the appropriate time;
or
(c) Site of production under physical protection from vectors, and found free from Citrus tristeza virus over the last complete growing season by testing of a representative sample of the plants at the appropriate time;
or
(d) [in cases where there is a positive test result in a lot] All plants have been tested individually and no more than 2% of those plants were found positive, the plants tested positive have been rogued out and destroyed immediately.

Pre-basic, basic and certified material, additional measures to be considered include:
• Measures to control the vector or reduce transmission;
• Physical protection of mother plants;
• Testing of mother plants.
Justification (if necessary):

Visual examination was not considered as being sufficient for this pest. Options (b) and (c) are very similar but the sampling intensity may be different. The fruit SEWG gave the indication of a minimum testing of 0,1% of the plants for an outdoor site of production and 0,05% of the plants under physical protection from vectors. However the coreHEWGplus recommended using 'a representative sample' rather than a specific percentage that should depend on the confidence level and the size of the sample (see ISPM 31). **REFERENCES:**

* EFSA Panel on Plant Health (PLH) (2014) Scientific Opinion on the pest categorisation of Citrus tristeza virus. EFSA Journal 2014;12(12):3923, 32 pp. doi:10.2903/j.efsa.2014.3923 <http://www.efsa.europa.eu/en/efsajournal/doc/3923.pdf>;
* 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 Citrus tristeza virus (European isolates);

HOST PLANT N°6: Fortunella (1FOLG) 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?**

Yes
Conclusion:

Qualified

Justification (if necessary):

The interest in Citrus and related genera as ornamental plants has increased in recent years, and many varieties and hybrids are suitable for this purpose. The EPPO PM 4/12 Standard for Citrus includes all species of Citrus, Poncirus, Fortunella and their hybrids, so it is assumed it can be recommended for the RNQP status for ornamental use based on the EPPO PM 4 Standard, and so this analysis does not need to continue. **CONCLUSION ON THE STATUS:**

Recommended for listing as an RNQP - based on EPPO PM 4 Standard, except for strains qualifying for the quarantine status, if it is possible depending on the tests available to do such a distinction. **8 - Tolerance level:**
Is there a need to change the Tolerance level:

No
Proposed Tolerance levels:

Zero tolerance approach, based on visual examination and/or testing. **9 - Risk management measures:**
Is there a need to change the Risk management measure:

Yes
Proposed Risk management measure:

(A) Derived from mother plants which have been tested within the previous 3 years and found free from Citrus tristeza virus;
AND
(B) (a) Plants produced in areas known to be free from Citrus tristeza virus;
or
(b) Site of production found free from Citrus tristeza virus over the last complete growing season by testing of a representative sample of the plants at the appropriate time;
or
(c) Site of production under physical protection from vectors, and found free from Citrus tristeza virus over the last complete growing season by testing of a representative sample of the plants at the appropriate time;
or
(d) [in cases where there is a positive test result in a lot] All plants have been tested individually and no more than 2% of those plants were found positive, the plants tested positive have been rogued out and destroyed immediately.
Justification (if necessary):

Experts considered that risks of cross-contamination with plants produced for fruit production should be taken into consideration. Therefore same measures than for the fruit sector are proposed. Visual examination was not considered as being sufficient for this pest. Options (b) and (c) are very similar but the sampling intensity may be different. The fruit SEWG gave the indication of a minimum testing of 0,1% of the plants for an outdoor site of production and 0,05% of the plants under physical protection from vectors. However the coreHEWGplus recommended using 'a representative sample' rather than a specific percentage that should depend on the confidence level and the size of the sample (see ISPM 31). **REFERENCES:**

* EFSA Panel on Plant Health (PLH) (2014) Scientific Opinion on the pest categorisation of Citrus tristeza virus. EFSA Journal 2014;12(12):3923, 32 pp. doi:10.2903/j.efsa.2014.3923 <http://www.efsa.europa.eu/en/efsajournal/doc/3923.pdf>;
* 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 Citrus tristeza virus (European isolates);
* Riolo G, Conti F, Tamburino V, D'Anna R, Cavallaro G, Garozzo M & Ricca G (2009) Tristeza of citrus under control in Sicilian nurseries. Informatore Agrario 65 No.40 pp.49-51;
* Santos ARA dos, Souza EH de, Fadini M, Souza FVD, Barbosa C de J, Girardi EA & Soares Filho W dos S (2016) Selection of CTV-tolerant citrus hybrids for ornamental use. Fruits (Paris) 71 No.6 pp.389-398;

HOST PLANT N°7: Fortunella hybrids (FOLHY) 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?**

Yes
Conclusion:

Qualified

Justification (if necessary):

Production of certified pathogen-tested trees and rootstocks of Citrus, Poncirus, Fortunella and their hybrids are covered by EPPO PM 4/12 (1) Standard. **CONCLUSION ON THE STATUS:**

Recommended for listing as an RNQP - based on EPPO PM 4 Standard, except for strains qualifying for the quarantine status, if it is possible depending on the tests available to do such a distinction. **8 - Tolerance level:**
Is there a need to change the Tolerance level:

No
Proposed Tolerance levels:

Zero tolerance approach, based on visual examination and/or testing. **9 - Risk management measures:**
Is there a need to change the Risk management measure:

Yes
Proposed Risk management measure:

Non-certified material (‘CAC’):
(A) Derived from mother plants which have been tested within the previous 3 years and found free from Citrus tristeza virus;
AND
(B) (a) Plants produced in areas known to be free from Citrus tristeza virus;
or
(b) Site of production found free from Citrus tristeza virus over the last complete growing season by testing of a representative sample of the plants at the appropriate time;
or
(c) Site of production under physical protection from vectors, and found free from Citrus tristeza virus over the last complete growing season by testing of a representative sample of the plants at the appropriate time;
or
(d) [in cases where there is a positive test result in a lot] All plants have been tested individually and no more than 2% of those plants were found positive, the plants tested positive have been rogued out and destroyed immediately.

Pre-basic, basic and certified material, additional measures to be considered include:
• Measures to control the vector or reduce transmission;
• Physical protection of mother plants;
• Testing of mother plants.
Justification (if necessary):

Visual examination was not considered as being sufficient for this pest. Options (b) and (c) are very similar but the sampling intensity may be different. The fruit SEWG gave the indication of a minimum testing of 0,1% of the plants for an outdoor site of production and 0,05% of the plants under physical protection from vectors. However the coreHEWGplus recommended using 'a representative sample' rather than a specific percentage that should depend on the confidence level and the size of the sample (see ISPM 31). **REFERENCES:**

* EFSA Panel on Plant Health (PLH) (2014) Scientific Opinion on the pest categorisation of Citrus tristeza virus. EFSA Journal 2014;12(12):3923, 32 pp. doi:10.2903/j.efsa.2014.3923 <http://www.efsa.europa.eu/en/efsajournal/doc/3923.pdf>;
* 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 Citrus tristeza virus (European isolates);

HOST PLANT N°8: Fortunella hybrids (FOLHY) 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?**

Yes
Conclusion:

Qualified

Justification (if necessary):

The interest in Citrus and related genera as ornamental plants has increased in recent years, and many varieties and hybrids are suitable for this purpose. The EPPO PM 4/12 Standard for Citrus includes all species of Citrus, Poncirus, Fortunella and their hybrids, so it is assumed it can be recommended for the RNQP status for ornamental use based on the EPPO PM 4 Standard, and so this analysis does not need to continue. **CONCLUSION ON THE STATUS:**

Recommended for listing as an RNQP - based on EPPO PM 4 Standard, except for strains qualifying for the quarantine status, if it is possible depending on the tests available to do such a distinction. **8 - Tolerance level:**
Is there a need to change the Tolerance level:

No
Proposed Tolerance levels:

Zero tolerance approach, based on visual examination and/or testing. **9 - Risk management measures:**
Is there a need to change the Risk management measure:

Yes
Proposed Risk management measure:

(A) Derived from mother plants which have been tested within the previous 3 years and found free from Citrus tristeza virus;
AND
(B) (a) Plants produced in areas known to be free from Citrus tristeza virus;
or
(b) Site of production found free from Citrus tristeza virus over the last complete growing season by testing of a representative sample of the plants at the appropriate time;
or
(c) Site of production under physical protection from vectors, and found free from Citrus tristeza virus over the last complete growing season by testing of a representative sample of the plants at the appropriate time;
or
(d) [in cases where there is a positive test result in a lot] All plants have been tested individually and no more than 2% of those plants were found positive, the plants tested positive have been rogued out and destroyed immediately.
Justification (if necessary):

Experts considered that risks of cross-contamination with plants produced for fruit production should be taken into consideration. Therefore same measures than for the fruit sector are proposed. Visual examination was not considered as being sufficient for this pest. Options (b) and (c) are very similar but the sampling intensity may be different. The fruit SEWG gave the indication of a minimum testing of 0,1% of the plants for an outdoor site of production and 0,05% of the plants under physical protection from vectors. However the coreHEWGplus recommended using 'a representative sample' rather than a specific percentage that should depend on the confidence level and the size of the sample (see ISPM 31). **REFERENCES:**

* EFSA Panel on Plant Health (PLH) (2014) Scientific Opinion on the pest categorisation of Citrus tristeza virus. EFSA Journal 2014;12(12):3923, 32 pp. doi:10.2903/j.efsa.2014.3923 <http://www.efsa.europa.eu/en/efsajournal/doc/3923.pdf>;
* 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 Citrus tristeza virus (European isolates);
* Riolo G, Conti F, Tamburino V, D'Anna R, Cavallaro G, Garozzo M & Ricca G (2009) Tristeza of citrus under control in Sicilian nurseries. Informatore Agrario 65 No.40 pp.49-51;
* Santos ARA dos, Souza EH de, Fadini M, Souza FVD, Barbosa C de J, Girardi EA & Soares Filho W dos S (2016) Selection of CTV-tolerant citrus hybrids for ornamental use. Fruits (Paris) 71 No.6 pp.389-398;

HOST PLANT N°9: Poncirus (1PMIG) 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?**

Yes
Conclusion:

Qualified

Justification (if necessary):

Production of certified pathogen-tested trees and rootstocks of Citrus, Poncirus, Fortunella and their hybrids are covered by EPPO PM 4/12 (1) Standard. **CONCLUSION ON THE STATUS:**

Recommended for listing as an RNQP - based on EPPO PM 4 Standard, except for strains qualifying for the quarantine status, if it is possible depending on the tests available to do such a distinction. **8 - Tolerance level:**
Is there a need to change the Tolerance level:

No
Proposed Tolerance levels:

Zero tolerance approach, based on visual examination and/or testing. **9 - Risk management measures:**
Is there a need to change the Risk management measure:

Yes
Proposed Risk management measure:

Non-certified material (‘CAC’):
(A) Derived from mother plants which have been tested within the previous 3 years and found free from Citrus tristeza virus;
AND
(B) (a) Plants produced in areas known to be free from Citrus tristeza virus;
or
(b) Site of production found free from Citrus tristeza virus over the last complete growing season by testing of a representative sample of the plants at the appropriate time;
or
(c) Site of production under physical protection from vectors, and found free from Citrus tristeza virus over the last complete growing season by testing of a representative sample of the plants at the appropriate time;
or
(d) [in cases where there is a positive test result in a lot] All plants have been tested individually and no more than 2% of those plants were found positive, the plants tested positive have been rogued out and destroyed immediately.

Pre-basic, basic and certified material, additional measures to be considered include:
• Measures to control the vector or reduce transmission;
• Physical protection of mother plants;
• Testing of mother plants.
Justification (if necessary):

Visual examination was not considered as being sufficient for this pest. Options (b) and (c) are very similar but the sampling intensity may be different. The fruit SEWG gave the indication of a minimum testing of 0,1% of the plants for an outdoor site of production and 0,05% of the plants under physical protection from vectors. However the coreHEWGplus recommended using 'a representative sample' rather than a specific percentage that should depend on the confidence level and the size of the sample (see ISPM 31). **REFERENCES:**

* EFSA Panel on Plant Health (PLH) (2014) Scientific Opinion on the pest categorisation of Citrus tristeza virus. EFSA Journal 2014;12(12):3923, 32 pp. doi:10.2903/j.efsa.2014.3923 <http://www.efsa.europa.eu/en/efsajournal/doc/3923.pdf>;
* 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 Citrus tristeza virus (European isolates);

HOST PLANT N°10: Poncirus (1PMIG) 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?**

Yes
Conclusion:

Qualified

Justification (if necessary):

The interest in Citrus and related genera as ornamental plants has increased in recent years, and many varieties and hybrids are suitable for this purpose. The EPPO PM 4/12 Standard for Citrus includes all species of Citrus, Poncirus, Fortunella and their hybrids, so it is assumed it can be recommended for the RNQP status for ornamental use based on the EPPO PM 4 Standard, and so this analysis does not need to continue. **CONCLUSION ON THE STATUS:**

Recommended for listing as an RNQP - based on EPPO PM 4 Standard, except for strains qualifying for the quarantine status, if it is possible depending on the tests available to do such a distinction. **8 - Tolerance level:**
Is there a need to change the Tolerance level:

No
Proposed Tolerance levels:

Zero tolerance approach, based on visual examination and/or testing. **9 - Risk management measures:**
Is there a need to change the Risk management measure:

Yes
Proposed Risk management measure:

(A) Derived from mother plants which have been tested within the previous 3 years and found free from Citrus tristeza virus;
AND
(B) (a) Plants produced in areas known to be free from Citrus tristeza virus;
or
(b) Site of production found free from Citrus tristeza virus over the last complete growing season by testing of a representative sample of the plants at the appropriate time;
or
(c) Site of production under physical protection from vectors, and found free from Citrus tristeza virus over the last complete growing season by testing of a representative sample of the plants at the appropriate time;
or
(d) [in cases where there is a positive test result in a lot] All plants have been tested individually and no more than 2% of those plants were found positive, the plants tested positive have been rogued out and destroyed immediately.
Justification (if necessary):

Experts considered that risks of cross-contamination with plants produced for fruit production should be taken into consideration. Therefore same measures than for the fruit sector are proposed. Visual examination was not considered as being sufficient for this pest. Options (b) and (c) are very similar but the sampling intensity may be different. The fruit SEWG gave the indication of a minimum testing of 0,1% of the plants for an outdoor site of production and 0,05% of the plants under physical protection from vectors. However the coreHEWGplus recommended using 'a representative sample' rather than a specific percentage that should depend on the confidence level and the size of the sample (see ISPM 31). **REFERENCES:**

* EFSA Panel on Plant Health (PLH) (2014) Scientific Opinion on the pest categorisation of Citrus tristeza virus. EFSA Journal 2014;12(12):3923, 32 pp. doi:10.2903/j.efsa.2014.3923 <http://www.efsa.europa.eu/en/efsajournal/doc/3923.pdf>;
* 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 Citrus tristeza virus (European isolates);
* Riolo G, Conti F, Tamburino V, D'Anna R, Cavallaro G, Garozzo M & Ricca G (2009) Tristeza of citrus under control in Sicilian nurseries. Informatore Agrario 65 No.40 pp.49-51;
* Santos ARA dos, Souza EH de, Fadini M, Souza FVD, Barbosa C de J, Girardi EA & Soares Filho W dos S (2016) Selection of CTV-tolerant citrus hybrids for ornamental use. Fruits (Paris) 71 No.6 pp.389-398;

HOST PLANT N°11: Poncirus hybrids (PMIHY) 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?**

Yes
Conclusion:

Qualified

Justification (if necessary):

Production of certified pathogen-tested trees and rootstocks of Citrus, Poncirus, Fortunella and their hybrids are covered by EPPO PM 4/12 (1) Standard. **CONCLUSION ON THE STATUS:**

Recommended for listing as an RNQP - based on EPPO PM 4 Standard, except for strains qualifying for the quarantine status, if it is possible depending on the tests available to do such a distinction. **8 - Tolerance level:**
Is there a need to change the Tolerance level:

No
Proposed Tolerance levels:

Zero tolerance approach, based on visual examination and/or testing. **9 - Risk management measures:**
Is there a need to change the Risk management measure:

Yes
Proposed Risk management measure:

Non-certified material (‘CAC’):
(A) Derived from mother plants which have been tested within the previous 3 years and found free from Citrus tristeza virus;
AND
(B) (a) Plants produced in areas known to be free from Citrus tristeza virus;
or
(b) Site of production found free from Citrus tristeza virus over the last complete growing season by testing of a representative sample of the plants at the appropriate time;
or
(c) Site of production under physical protection from vectors, and found free from Citrus tristeza virus over the last complete growing season by testing of a representative sample of the plants at the appropriate time;
or
(d) [in cases where there is a positive test result in a lot] All plants have been tested individually and no more than 2% of those plants were found positive, the plants tested positive have been rogued out and destroyed immediately.

Pre-basic, basic and certified material, additional measures to be considered include:
• Measures to control the vector or reduce transmission;
• Physical protection of mother plants;
• Testing of mother plants.
Justification (if necessary):

Visual examination was not considered as being sufficient for this pest. Options (b) and (c) are very similar but the sampling intensity may be different. The fruit SEWG gave the indication of a minimum testing of 0,1% of the plants for an outdoor site of production and 0,05% of the plants under physical protection from vectors. However the coreHEWGplus recommended using 'a representative sample' rather than a specific percentage that should depend on the confidence level and the size of the sample (see ISPM 31). **REFERENCES:**

* EFSA Panel on Plant Health (PLH) (2014) Scientific Opinion on the pest categorisation of Citrus tristeza virus. EFSA Journal 2014;12(12):3923, 32 pp. doi:10.2903/j.efsa.2014.3923 <http://www.efsa.europa.eu/en/efsajournal/doc/3923.pdf>;
* 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 Citrus tristeza virus (European isolates);

HOST PLANT N°12: Poncirus hybrids (PMIHY) 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?**

Yes
Conclusion:

Qualified

Justification (if necessary):

The interest in Citrus and related genera as ornamental plants has increased in recent years, and many varieties and hybrids are suitable for this purpose. The EPPO PM 4/12 Standard for Citrus includes all species of Citrus, Poncirus, Fortunella and their hybrids, so it is assumed it can be recommended for the RNQP status for ornamental use based on the EPPO PM 4 Standard, and so this analysis does not need to continue. **CONCLUSION ON THE STATUS:**

Recommended for listing as an RNQP - based on EPPO PM 4 Standard, except for strains qualifying for the quarantine status, if it is possible depending on the tests available to do such a distinction. **8 - Tolerance level:**
Is there a need to change the Tolerance level:

No
Proposed Tolerance levels:

Zero tolerance approach, based on visual examination and/or testing. **9 - Risk management measures:**
Is there a need to change the Risk management measure:

Yes
Proposed Risk management measure:

(A) Derived from mother plants which have been tested within the previous 3 years and found free from Citrus tristeza virus;
AND
(B) (a) Plants produced in areas known to be free from Citrus tristeza virus;
or
(b) Site of production found free from Citrus tristeza virus over the last complete growing season by testing of a representative sample of the plants at the appropriate time;
or
(c) Site of production under physical protection from vectors, and found free from Citrus tristeza virus over the last complete growing season by testing of a representative sample of the plants at the appropriate time;
or
(d) [in cases where there is a positive test result in a lot] All plants have been tested individually and no more than 2% of those plants were found positive, the plants tested positive have been rogued out and destroyed immediately.
Justification (if necessary):

Experts considered that risks of cross-contamination with plants produced for fruit production should be taken into consideration. Therefore same measures than for the fruit sector are proposed. Visual examination was not considered as being sufficient for this pest. Options (b) and (c) are very similar but the sampling intensity may be different. The fruit SEWG gave the indication of a minimum testing of 0,1% of the plants for an outdoor site of production and 0,05% of the plants under physical protection from vectors. However the coreHEWGplus recommended using 'a representative sample' rather than a specific percentage that should depend on the confidence level and the size of the sample (see ISPM 31). **REFERENCES:**

* EFSA Panel on Plant Health (PLH) (2014) Scientific Opinion on the pest categorisation of Citrus tristeza virus. EFSA Journal 2014;12(12):3923, 32 pp. doi:10.2903/j.efsa.2014.3923 <http://www.efsa.europa.eu/en/efsajournal/doc/3923.pdf>;
* 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 Citrus tristeza virus (European isolates);
* Riolo G, Conti F, Tamburino V, D'Anna R, Cavallaro G, Garozzo M & Ricca G (2009) Tristeza of citrus under control in Sicilian nurseries. Informatore Agrario 65 No.40 pp.49-51;
* Santos ARA dos, Souza EH de, Fadini M, Souza FVD, Barbosa C de J, Girardi EA & Soares Filho W dos S (2016) Selection of CTV-tolerant citrus hybrids for ornamental use. Fruits (Paris) 71 No.6 pp.389-398;