



REPORT

Technical Panel on Phytosanitary Treatments

**Virtual meeting
04 February 2020**

IPPC Secretariat

FAO. 2020. *Report of the February Virtual Meeting of the Technical panel on Phytosanitary Treatments, 04 February 2020*. Published by FAO on behalf of the Secretariat of the International Plant Protection Convention (IPPC). 10 pages. Licence: CC BY-NC-SA 3.0 IGO.

The designations employed and the presentation of material in this information product do not imply the expression of any opinion whatsoever on the part of the Food and Agriculture Organization of the United Nations (FAO) concerning the legal or development status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. The mention of specific companies or products of manufacturers, whether or not these have been patented, does not imply that these have been endorsed or recommended by FAO in preference to others of a similar nature that are not mentioned.

The views expressed in this information product are those of the author(s) and do not necessarily reflect the views or policies of FAO.

© FAO, 2019



Some rights reserved. This work is made available under the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 IGO licence (CC BY-NC-SA 3.0 IGO; <https://creativecommons.org/licenses/by-nc-sa/3.0/igo/legalcode>).

Under the terms of this licence, this work may be copied, redistributed and adapted for non-commercial purposes, provided that the work is appropriately cited. In any use of this work, there should be no suggestion that FAO endorses any specific organization, products or services. The use of the FAO logo is not permitted. If the work is adapted, then it must be licensed under the same or equivalent Creative Commons licence. If a translation of this work is created, it must include the following disclaimer along with the required citation: "This translation was not created by the Food and Agriculture Organization of the United Nations (FAO). FAO is not responsible for the content or accuracy of this translation. The original English edition shall be the authoritative edition."

Disputes arising under the licence that cannot be settled amicably will be resolved by mediation and arbitration as described in Article 8 of the licence except as otherwise provided herein. The applicable mediation rules will be the mediation rules of the World Intellectual Property Organization <http://www.wipo.int/amc/en/mediation/rules> and any arbitration will be conducted in accordance with the Arbitration Rules of the United Nations Commission on International Trade Law (UNCITRAL).

Third-party materials. Users wishing to reuse material from this work that is attributed to a third party, such as tables, figures or images, are responsible for determining whether permission is needed for that reuse and for obtaining permission from the copyright holder. The risk of claims resulting from infringement of any third-party-owned component in the work rests solely with the user.

Sales, rights and licensing. FAO information products are available on the FAO website (www.fao.org/publications) and can be purchased through publications-sales@fao.org. Requests for commercial use should be submitted via: www.fao.org/contact-us/licence-request. Queries regarding rights and licensing should be submitted to: copyright@fao.org.

CONTENTS

1. Opening of the Meeting	4
1.1. Welcome by the IPPC Secretariat and introductions	4
1.2. Adoption of the agenda and election of the rapporteur	4
2. TPPT work programme – approval of responses to consultation comments.....	4
2.1 Cold treatment of <i>Ceratitis capitata</i> on <i>Vitis vinifera</i> (2017-023A).....	4
2.2 Cold treatment of <i>Bactrocera tryoni</i> on <i>Vitis vinifera</i> (2017-023B)	5
2.3 Cold treatment of <i>Ceratitis capitata</i> on <i>Prunus avium</i> , <i>Prunus domestica</i> and <i>Prunus persica</i> (2017-022A).....	6
2.4 Cold treatment of <i>Bactrocera tryoni</i> on <i>Prunus avium</i> , <i>Prunus domestica</i> and <i>Prunus persica</i> (2017-022B)	7
3. Other Business	7
3.1 TPPT work programme 2020	7
3.2 PMRG update	7
3.3 Wood chips – reconsidering the submission.....	8
4. Close of the Meeting.....	8
Appendix 1: Agenda.....	9

1. Opening of the Meeting

1.1. Welcome by the IPPC Secretariat and introductions

[1] The International Plant Protection Convention (IPPC) Secretariat (hereafter referred to as “Secretariat”) lead for the Technical Panel on Phytosanitary Treatments (TPPT) chaired the meeting and welcomed the following participants:

1. Mr David OPATOWSKI (TPPT Steward)
2. Mr Toshiyuki DOHINO (Japan)
3. Mr Michael ORMSBY (New Zealand)
4. Mr Matthew SMYTH (Australia)
5. Mr Eduardo WILLINK (Argentina)
6. Mr Daojian YU (China)
7. Mr Walther ENKERLIN HOEFLICH (IAEA)
8. Mr Peter LEACH (Australia)
9. Ms Andrea BEAM (USA)
10. Mr Guy HALLMAN (Invited expert)
11. Ms Janka KISS (IPPC Secretariat, lead)
12. Mr Artur SHAMILOV (IPPC Secretariat, support)

[2] The full list of TPPT members and their contact details can be found on the International Phytosanitary Portal (IPP)¹.

[3] Mr Walther ENKERLIN HOEFLICH (IAEA) and Ms Andrea BEAM (USA), the new TPPT members were welcomed by the TPPT and the Secretariat.

1.2. Adoption of the agenda and election of the rapporteur

[4] The Secretariat introduced the agenda and it was adopted as presented in Appendix 1 to this report.

[5] Mr Eduardo WILLINK was elected as the Rapporteur.

2. TPPT work programme – approval of responses to consultation comments

[6] The Secretariat provided background information on the consultation stage of the standard setting process.

2.1 Cold treatment of *Ceratitis capitata* on *Vitis vinifera* (2017-023A)

[7] Mr Toshiyuki DOHINO, the Treatment Lead introduced the Treatment Lead summary, the compiled comments and the revised draft² and the TPPT discussed the outstanding comments from the first consultation on this draft.

[8] **Treatment end point.** One contracting party was concerned that as the treatment end point was determined as “failure to pupariate” this would potentially allow for the presence of live target pests upon arrival of the consignment. The TPPT agreed that there are already several adopted PTs with similar outcomes (PT 24-26, 30 and 31), the difference being that the same criteria is mentioned in “Other relevant information” section instead of in the “Treatment schedule” section. The TPPT decided in earlier meetings that the end point of the schedules should be mentioned clearly and felt that any necessary action when live larvae are detected in import-inspection should be determined by a work plan under a bilateral agreement.

[9] It was noted that researchers can use two equally valid endpoints “acute mortality” (whereby all fruit are cut open and larvae death is substantiated) and “chronic mortality” (lack of pupation). However, it was recognized that finding live larvae in a commercial shipment after a cold treatment would be

¹ TPPT membership list: <https://www.ippc.int/en/publications/81655/>

² 2017-023A, 03_TPPT_2020_Feb, 04_TPPT_2020_Feb

considered by many countries as a treatment failure. This is further discussed under the agenda item for the PMRG.

- [10] One member noted that ISPM 28 (*Phytosanitary treatments for regulated pests*) states, that a treatment has to “be effective in killing, inactivating or removing pests, or rendering pests infertile or for devitalization associated with a regulated article.” and ultimately failure to pupate would be equal to “killing” the pest.
- [11] For this reason, the TPPT considered that the schedule should be reworded and put in line with previous adopted PTs. The PT was reworded to state “the treatment according to this schedule *kills* not less than 99.9987% of eggs and larvae of *Ceratitis capitata*”.
- [12] **Cultivars:** Some comments suggested not to mention the cultivars that the research was done with in the Other relevant information section, in order to avoid confusion when implementing the treatment schedule in different cultivars of *Vitis vinifera*. However the TPPT decided to retain the mention of cultivars as this has been done previously with other PTs and in case the specified mortality cannot be achieved in another variety, it could be raised to the TPPT.
- [13] **Temperature measurement.** One comment suggested to define clearer where to measure the temperature. The TPPT agreed to add the word “core” into “fruit core temperature” as it is common practice to measure the temperature at the core of the commodity and in the supporting studies it was done so.
- [14] The TPPT added that some of the other cold treatments do not specify to measure temperatures at the fruit *core*. The TPPT considered the proposed addition of “core” to the already adopted cold treatments (PT 16, 17, 18, 24, 25, 26, 27, 28 and 29) and although some members supported the proposal, they agreed that they were worded according to the research supporting them (depending on where the temperature was measured) and no ink amendments were needed to the adopted PTs.
- [15] **Alternative treatments for the same commodity.** Some comments proposed that there are other treatments that are available for the same commodity. The TPPT recognized that there may be alternative treatments for the same commodity applied in international trade, however these were not submitted via the open call for topics and as the TPPT applies the criteria outlined in ISPM 28, and is required to establish a stated level of efficacy, these cannot be considered as annexes to ISPM 28 unless supporting data is submitted to corroborate the efficacy of these treatments. It was noted however, that there is no restriction to use these when agreed bilaterally.

[16] The TPPT

- (1) *approved* the revised draft PT to be presented to the Standards Committee (SC) for approval for second consultation
- (2) *agreed* to review and approve comments via TPPT e-forum the responses to consultation comments as to be presented to the SC.

2.2 Cold treatment of *Bactrocera tryoni* on *Vitis vinifera* (2017-023B)

- [17] Mr Toshiyuki DOHINO, the Treatment Lead introduced the Treatment Lead summary, the compiled comments and the revised draft³ and the TPPT discussed the outstanding comments from the first consultation on this draft. The comments were mostly the same as the previous draft PT, and thus reported under section 2.1.
- [18] **Endpoint.** One member pointed out that the draft PT described the endpoint as “mortality of eggs and larvae of [...]”. The PT discussed the endpoint and how to specify it in the scope. Some members suggested to add a note to the text to explain that failure to pupariate equals to chronic mortality.

³ 2017-023B, 05_TPPT_2020_Feb, 06_TPPT_2020_Feb

- [19] The TPPT agreed that chronic mortality and failure to pupariate is essentially the same thing and to include an explanation of this in the responses to the consultation comments. In the past the endpoint was described as *mortality* in the “Scope” and “Treatment schedule” sections whereas more details were provided in the “Other relevant information” section for example “failure to pupariate”. However the TPPT thought that it was redundant and possibly confusing, considering that the Other relevant information section has a detailed explanation on what mortality means in each specific case. For example 2017-023B states: “Schedules 1 and 2 were based on the work of De Lima *et al.* (2011) and NSW DPI (2007) and developed using failure to pupariate as the measure of mortality.”
- [20] For this reason the TPPT amended the text of the “Scope” and “Treatment schedule” sections to say “...this schedule *kills* not less than...”. This creates consistency in describing that the treatment results in mortality and defines mortality as prevention of pupariation in this particular case.
- [21] **Annotated template.** The TPPT discussed to review the Annotated template for PTs, and noted that the irradiation PTs have a lot more detail included in the scope section than the other treatment types. They recommended to review the Annotated template once the workload of the TPPT allows it in light of the previous discussion on the Scope of the PTs and the treatment endpoint.
- [22] **Ink amendments.** It was discussed that the endpoint is described in different manners in other adopted PTs. They noted that in some cases different schedules have different end points under the same scope – thus the scope uses terminology that covers all endpoints (e.g. the scope mentions mortality and it is described later in the text what was used as the measure of mortality for each Schedule). The TPPT thought about whether a revision of all PTs was needed but they concluded that the current versions aligned with the TPPTs decision on the wording and when different, the differences were justified by the research method. The TPPT discussed however that PT 16 and 17 should be reviewed as they are based on similar research to this PT and thus the wording should be consistent across PT 16, 17 and the new cold treatments.
- [23] The TPPT modified the draft PT accordingly and asked the Treatment Lead to amend the responses to the compiled comments including the mention that failure to pupariate is ultimately considered chronic mortality.
- [24] The TPPT
- (3) *approved* the revised draft PT to be presented to the Standards Committee (SC) for approval for second consultation
 - (4) *agreed* to review and approve comments via TPPT e-forum the responses to consultation comments as to be presented to the SC.
 - (5) *recommended* to review the Annotated template for phytosanitary treatments once the workload of the TPPT allows it.

2.3 Cold treatment of *Ceratitis capitata* on *Prunus avium*, *Prunus domestica* and *Prunus persica* (2017-022A)

- [25] Mr Toshiyuki DOHINO, the Treatment Lead introduced the Treatment Lead summary, the compiled comments and the revised draft⁴ and the TPPT discussed the outstanding comments from the first consultation on this draft. The comments were mostly the same as the previous draft PTs, and thus reported under section 2.1 and 2.2.
- [26] The TPPT modified the draft PT accordingly and asked the Treatment Lead to amend the responses to the compiled comments including the mention that failure to pupariate is ultimately considered chronic mortality.
- [27] The TPPT

⁴ 2017-022A, 07_TPPT_2020_Feb, 08_TPPT_2020_Feb

- (6) *approved* the revised draft PT to be presented to the Standards Committee (SC) for approval for second consultation
- (7) *agreed* to review and approve comments via TPPT e-forum the responses to consultation comments as to be presented to the SC.

2.4 Cold treatment of *Bactrocera tryoni* on *Prunus avium*, *Prunus domestica* and *Prunus persica*) (2017-022B)

- [28] Mr Toshiyuki DOHINO, the Treatment Lead introduced the Treatment Lead summary, the compiled comments and the revised draft⁵ and the TPPT discussed the outstanding comments from the first consultation on this draft. The comments were mostly the same as the previous draft PT, and thus reported under section 2.1 and 2.2.
- [29] The TPPT modified the draft PT accordingly and asked the Treatment Lead to amend the responses to the compiled comments including the mention that failure to pupariate is ultimately considered chronic mortality.
- [30] The TPPT
- (8) *approved* the revised draft PT to be presented to the Standards Committee (SC) for approval for second consultation
 - (9) *agreed* to review and approve comments via TPPT e-forum the responses to consultation comments as to be presented to the SC.

3. Other Business

3.1 TPPT work programme 2020

- [31] The Secretariat introduced the document⁶ that provided an overview of the TPPT work programme and discussed the upcoming TPPT tasks. The panel also agreed to hold another TPPT virtual meeting soon.

3.2 PMRG update

- [32] At the 2019 July face to face meeting⁷ the TPPT had requested the support of the PMRG with further developing the supporting data for submissions. The Chair of the Phytosanitary Measures Research Group (PMRG), Mr Peter Leach updated the TPPT of the meeting of this group in September and the issues relevant to the TPPT work.
- [33] **Endpoint.** The PMRG considered that in treatment research (for fruit flies), it is very resource intensive to choose the end point as acute mortality and cut the fruit open to check for larvae. It is much more common to choose chronic mortality as an end point and check if any puparium develop. The PMRG agreed that this should be an acceptable endpoint but it was also the subject of bilateral agreement if acute or chronic mortality is accepted as the endpoint of treatment research.
- [34] **Research guidelines.** Heat and cold treatment guidelines were already developed but it was proposed to extend these to insects other than fruit flies. However the PMRG noted that the guidelines could only address fruit flies but should be expanded to include hot water dipping (additional to vapor heat) and other research guidelines would be developed for the heat or cold treatment of other insect groups. Some information on the evaluation criteria for temperature treatment exposure parameters (reported under agenda item 11.1 of the 2018 June TPPT meeting) will be added to the guidelines before the next PMRG meeting.

⁵ 2017-022B, 09_TPPT_2020_Feb, 10_TPPT_2020_Feb

⁶ 11_TPPT_2020_Feb

⁷ 2019-07 TPPT meeting report: <https://www.ippc.int/en/publications/87681/>

- [35] **Correcting sample sizes and estimating number of insects treated.** The PMRG discussed how to calculate efficacy and look at the variability in the infestation rates of control fruits in trials and agreed that it is preferable to observe the infestation rate of individual units (eg fruits or boxes) rather than grouping them together and apply a generic infestation rate.
- [36] **Systems approaches.** The PMRG discussed some systems approaches and related research and noted that some interesting application of systems approached is taking place in South Africa in the citrus trade. However there doesn't seem to have appropriate data sets to consider these under the TPPT's mandate.
- [37] **Irradiation treatment for *Frankliniella occidentalis* on all fresh commodities (2017-019).** One of the PMRG members said he would consider conducting further research on of *Frankliniella occidentalis*.
- [38] **Irradiation treatment for all stages of the family Pseudococcidae (generic) (2017-012).** Some PMRG members also volunteered to identify the economically important Pseudococcidae species especially the ones considered quarantine pests in their regions and gather available studies covering Pseudococcidae species in order to establish the generic treatment for the family Pseudococcidae.
- [39] **Next PMRG meeting.** The next meeting will take place from the 21-25 September 2020 in Rome, Italy.

3.3 Wood chips – reconsidering the submission

- [40] The TPPT was informed that the submitter of this treatment, that was removed from the work programme due to the lack of sufficient supporting information, requested that their submission be reconsidered. The Treatment Lead introduced the document⁸ that includes the justification provided by the submitter and the comments of the Treatment Lead addressing them. The TPPT discussed, the submitters' comments and considered what kind of information would be needed to reconsider the submission. One members thought wood chips is handled differently to packaging and therefore presents a different risk.
- [41] The TPPT agreed that wood chips is an important commodity and concluded that if the submitter provided data sets supporting the schedule that would allow the treatment to be considered under ISPM 28, they would recommend it for the work programme. The TPPT agreed with the responses provided and that the Treatment Lead will work with the Secretariat providing the responses to the submitter.

4. Close of the Meeting

- [42] The Secretariat thanked the TPPT members for their participation and closed the meeting.

⁸ 12_TPPT_2020_Feb

Appendix 1: Agenda**2020 FEBRUARY VIRTUAL MEETING OF THE TECHNICAL PANEL
ON PHYTOSANITARY TREATMENTS (TPPT)****AGENDA**

AGENDA ITEM	DOCUMENT NO.	PRESENTER
1. Opening of the meeting		
1.1 Welcome by the IPPC Secretariat and introductions ❖ New TPPT member	02_TPPT_2020_Feb	KISS / ALL
1.2 Adoption of the agenda and election of the rapporteur	01_TPPT_2020_Feb	KISS / ALL
2. TPPT work programme – approval of responses to consultation comments		
2.1 Cold treatment of <i>Ceratitis capitata</i> on <i>Vitis vinifera</i> (2017-023A) – priority 1 - Draft PT: 2017-023A - Treatment lead summary - Compiled comments	Link to the submission 2017-023A 2017-023A 03_TPPT_2020_Feb 04_TPPT_2020_Feb	DOHINO
2.2 Cold treatment of <i>Bactrocera tryoni</i> on <i>Vitis vinifera</i> (2017-023B) – priority 1 - Draft PT: 2017-023B - Treatment lead summary - Compiled comments	Link to the submission 2017-023B 2017-023B 05_TPPT_2020_Feb 06_TPPT_2020_Feb	DOHINO
2.3 Cold treatment of <i>Ceratitis capitata</i> on <i>Prunus avium</i> , <i>Prunus domestica</i> and <i>Prunus persica</i> (2017-022A) – priority 1 - Draft PT: 2017-022A - Treatment lead summary - Compiled comments	Link to the submission 2017-022A 2017-022A 07_TPPT_2020_Feb 08_TPPT_2020_Feb	DOHINO
2.4 Cold treatment of <i>Bactrocera tryoni</i> on <i>Prunus avium</i> , <i>Prunus domestica</i> and <i>Prunus persica</i> (2017-022B) – priority 1	Link to the submission 2017-022B	DOHINO

AGENDA ITEM		DOCUMENT NO.	PRESENTER
	- Draft PT: 2017-022B	2017-022B	
	- Treatment lead summary	09_TPPT_2020_Feb	
	- Compiled comments	10_TPPT_2020_Feb	
3.	Other business		
3.1	❖ TPPT workprogramme 2020	11_TPPT_2020_Feb	KISS
3.2	❖ PMRG update	-	LEACH/ MYERS/ ORMSBY
3.3	❖ Wood chips – reconsidering the submission	12_TPPT_2020_Feb	ORMSBY
4.	Close of the meeting	-	KISS