



REPORT

Technical Panel on Phytosanitary Treatments

**Virtual meeting
12 December 2018**

IPPC Secretariat

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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”) support for 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 Andrew PARKER (International Atomic Energy Agency)
5. Mr Matthew SMYTH (Australia)
6. Mr Yuejin WANG (China)
7. Mr Eduardo WILLINK (Argentina)
8. Mr Daojian YU (China)
9. Mr Guy HALLMAN (Invited expert)
10. Ms Adriana G. MOREIRA (IPPC Secretariat, lead)
11. Ms Janka KISS (IPPC Secretariat, support)

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

1.2. Adoption of the agenda and election of the rapporteur

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

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

2. Updates from the Secretariat

2.1. 2018 November Standards Committee meeting

[5] The TPPT Steward introduced the paper² and updated the participants on the relevant issues discussed at the 2018 November Standards Committee (SC) meeting.

[6] **Fumigation standard approved.** The TPPT was informed that the SC recommended the draft ISPM: *Requirements for the use of fumigation as a phytosanitary measure* (2014-004) to the Committee on Phytosanitary Measures (CPM-14) 2019 for adoption.

[7] The SC thanked the previous and current Stewards and the TPPT for their efforts in developing the draft standard. The SC noted that it may be beneficial to have the assistance of the technical co-stewards or assistant stewards at these late stage discussions of technical ISPMs.

[8] **Guidance on treatment research.** The TPPT was informed that the SC agreed that the Secretariat should combine the research guidance material (previously appendices to the draft ISPMs on requirements for the use of treatments as phytosanitary measures (e.g. the research guidelines in ISPM 42)) into one document “*TPPT treatment research guidelines*” and make them publicly available on the Standard Setting page of the International Phytosanitary Portal (IPP).

[9] **TPPT recommendations on removal/addition of PT proposals.** The SC agreed with the recommendations of the TPPT regarding the addition and removal of PTs from the work program, and to *change the priority* of the draft PT: Irradiation treatment for *Bactrocera tau* (2017-025) from 3 to 2 due to the demonstrated economic importance of the treatment. The SC also *assigned pending status*

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

² 10_TPPT_2018_Dec

to the draft PT on Heat treatment of wood using dielectric heating (2007-114) until further information is provided.

- [10] On the submissions concerning treatments using controlled atmosphere/temperature treatment systems, one SC member noted that the proposed titles did not refer to modified atmospheres, the term which is used in ISPMs, but considered that this will be addressed during the evaluation of the proposed PTs.
- [11] **PT proposal not supported by IPPC contact point.** The TPPT was informed that the NPPO of the country submitting the proposal for the PT on “Phytosanitary irradiation treatment of fresh commodities against *Liriomyza sativa*, *L. trifolii* and *L. huidobrensis* (2018-001)” informed the Secretariat in September 2018 that they did not wish to support it. However the SC decided to keep it on the work program for the time being.
- [12] **Invited expert.** The SC agreed that Mr Guy HALLMAN be invited as an expert to the 2019 TPPT meetings.
- [13] **Commodity and Pathway Standards.** The TPPT was informed of the proposals from the Focus Group on Commodity and Pathway Standards (which met from 03-05 October 2018), acknowledging possible adjustments in the standard setting process. A new governance processes will be required to support the development of these standards, for example a new Technical Panel for Phytosanitary Measures (TPPM) will support the development of commodity and pathway standards and possibly the current TPPT would become a subcommittee of the TPPM.
- [14] The TPPT noted the update and briefly discussed the possible implications of the new process to their work. The Secretariat clarified that the new process is not finalized yet, and it will still be discussed at CPM-14 (2019).
- [15] The TPPT
- (1) noted the update from the November 2018 SC meeting.

3. TPPT work programme

- [16] The Secretariat informed the TPPT that two additional treatment submissions had been received in response to the Call for phytosanitary treatments. All the submissions, the list of submitted treatments and the non-confidential supporting documents are publicly available on the IPP³.
- [17] **Irradiation treatment for coffee berry borer *Hypothenemus hampei* (2018-041).** The submission for the Irradiation treatment for coffee berry borer *Hypothenemus hampei* (2018-041) was resubmitted. The TPPT did not proposed it for the work program as the first submission contained insufficient supporting documentation. The submitter decided to resubmit the treatment providing more supporting information. Mr Eduardo WILLINK volunteered to be the Treatment Lead for this submission.
- [18] **Irradiation treatment for *Omphisa anastomosalis* eggs, larvae, and pupae (2018-042).** The Secretariat explained that Mr Toshiyuki DOHINO volunteered to evaluate the submission for Irradiation treatment for *Omphisa anastomosalis* eggs, larvae, and pupae (2018-042).

3.1. Objection to the Heat treatment of wood using dielectric heating (2007-114)

- [19] Mr Michael ORMSBY, the Treatment Lead of the draft PT Heat treatment of wood using dielectric heating (2007-114) provided a summary on the progress in evaluating the objection. As discussed at the November 2017 meeting⁴ of the TPPT, it is likely that problems around the application resulted in the failure of the schedule (loss on the surface, cold spots cannot be excluded). The International

³ Calls for treatments: <https://www.ippc.int/en/core-activities/standards-setting/calls-treatments/>

⁴ 11-2017 TPPT virtual meeting report: <https://www.ippc.int/en/publications/85546/>

Forestry Quarantine Research Group (IFQRG) is currently reviewing the previously developed (IPPC) guidance on how to successfully apply dielectric heating treatments.

- [20] The Secretariat contacted the submitter of the objection prior to the December 2018 virtual meeting of the TPPT to inquire if there was any further information available that would help to address the concerns raised by the objection and help to resolve the issue. The submitter responded, informing the Secretariat, that the General Administration of Customs R.P. China (GACC) is adjusting the test plan. After the plan settled, GACC will try to carry out further tests. They informed the Secretariat, that there is no new test data to be submitted currently.
- [21] The Treatment Lead who is also the acting Chair of the IFQRG informed the TPPT that at their last meeting the IFQRG decided to further pursue the development of a guidance material for the application of dielectric heating to wood. It is expected to be finalized by mid-October 2019⁵. It was pointed out that the main issue is the implementation of the treatment, and may not be the treatment schedule *per se*.
- [22] The TPPT agreed that at their next face to face meeting, they will finalize the responses to the objection consider ways to address the issue, and give clear recommendations to the SC whether the objection to the adoption of this phytosanitary treatment is technically justified.

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

- [23] The Treatment Lead for the draft PT, Mr Toshiyuki DOHINO, introduced the issue that was identified during a recent TPPT e-decision (2018_eTPPT_Oct_01) on the approval of the Cold treatment of *Ceratitis capitata* on table grapes (2017-023A) for first consultation.
- [24] At the June 2018 meeting the TPPT discussed the draft PT on the Cold treatment of *Ceratitis capitata* on *Vitis vinifera* (2017-023A). They agreed to include the schedules supported by the extensive studies provided in the submission. Additionally they considered the study of De Lima *et al.* (2017) that provides a data set from preliminary trials that would support an additional schedule (1 °C cold treatment for 14 days).
- [25] In the TPPT e-decision forum (2018_eTPPT_Oct_01), one member expressed concerns that the suggested treatment for 1°C required 16 days whereas some countries accept trade based on a schedule of 14 days at the same temperature. It was proposed to consider again the reference, (De Lima *et al* 2017)⁶ and what additional information would be needed to support a less restrictive treatment at 1 °C for 14 days.
- [26] It was highlighted that the details of the supporting data are not provided in the paper of De Lima *et al* (2017), it is not clear, how the exposure period was selected and why the 14 day schedule was not recommended, even though according to the paper, there were no survivors in an estimated number 398 622 treated immature stages.
- [27] The TPPT discussed that if the data of the calculation on the number of treated insect could be obtained, the efficacy level of the 14 day treatment might be higher than the 16 day treatment and thus could replace it.
- [28] The TPPT decided to request additional data on the calculation of the number of treated insects to confirm the calculations and corrections resulting in the estimated number 398 622 treated immature stages and discuss the treatment further at the next virtual meeting in February 2019.

⁵ Meeting report of the 2018 October meeting of IFQRG:

<https://www.ippc.int/en/partners/internationalforestryquarantineresearchgroup/publications/2018/12/report-ifqrg-2018-10-rome/>

⁶ De Lima CPF, Mansfield ER, Poogoda SR (2017). International market access for Australian table grapes through cold treatment of fruit flies with a review of methods, models and data for fresh fruit disinfestation. Australian Journal of Grape and Wine Research 2017: 1-12.

3.3. Irradiation treatment for *Omphisa anastomosalis* eggs, larvae and pupae (2018-042)

- [29] The Lead for the submission, Mr Toshiyuki DOHINO, introduced the Checklist for evaluating treatment submissions and Prioritization score sheet⁷ for the Irradiation treatment for *Omphisa anastomosalis* eggs, larvae and pupae (2018-042).
- [30] The proposed treatment schedule is a minimum absorbed dose of 150 Gy to prevent the development of F1 adults. The schedule is supported by three reference papers⁸. Follett (2006) provides information on the most radio-tolerant stage (pupae) of *Omphisa anastomosalis* and provides large-scale test data (total 37 tests: 30,282 pupae, measure absorbed dose: 135-148 Gy) to calculate the efficacy.
- [31] The TPPT discussed the lack of clear information on the number of replication of laboratory tests for determining the most tolerant life stage. Species identification and retention of voucher specimens should also be clarified.
- [32] It was highlighted that there are two adopted irradiation treatments against pests of sweet potato:
- PT 12: Irradiation treatment for *Cylas formicarius elegantulus* (sweetpotato weevil – 165 Gy to prevent the development of F1 adults)
 - PT 13: Irradiation treatment for *Eusepes postfasciatus* (West Indian sweet potato weevil – 150 Gy to prevent the development of F1 adults).
- [33] The distribution areas of these species overlap with *Omphisa anastomosalis*, the adoption of the proposed new PT would facilitate the international trade of sweet potato produced in Asian countries.
- [34] **Title.** The TPPT agreed to change “Irradiation treatment for *Omphisa anastomosalis* eggs, larvae, and pupae” for “Irradiation treatment for *Omphisa anastomosalis*” for consistency with names of PT 12 and PT 13.
- [35] **Most resistant life stage.** The study of Follett (2006) used natural infestation methods, and determined that the most resistant life stage of the target pest is the pupae. It was discussed that 400 Gy is approved as irradiation dose for all Insects except adults and pupae of Lepidoptera as the insect group is considered quite radio tolerant. The TPPT felt that it would be important to clarify if the study used *late stage* pupae that is known to be the most resistant life stage.
- [36] **Target regulated article.** The experiment was conducted using sweet potato, and the target regulated article is defined in the submission as sweet potato, but the TPPT may consider to broadening it to all fruits and vegetables that are hosts of *Omphisa anastomosalis* once evaluating this submission in a more detailed manner in a future meeting.
- [37] **Dose.** In the study 148 Gy is applied, and it was suggested to include this dose in the treatment schedule instead of rounding up the dose to 150.
- [38] **Endpoint.** The proposed end point (to prevent the development of F1 adults) would allow for the presence of live, non-viable insects. Although this is the outcome of other similar adopted PTs (PT 12 and PT 13), the TPPT agreed to further examine whether this is an appropriate outcome for the elimination of the pest risk in the case of *Omphisa anastomosalis*.

⁷ 03_TPPT_2018_Dec

⁸ **Follett, P. A.** 2006. Irradiation as a methyl bromide alternative for postharvest control of *Omphisa anastomosalis* (Lepidoptera: Pyralidae) and *Eusepes postfasciatus* and *Cylas formicarius elegantulus* (Coleoptera: Curculionidae) in sweet potatoes. *Journal of Economic Entomology* 99 (1): 32-37.

Wall, M. M. 2005. Storage quality and composition of sweetpotato roots after quarantine treatment using low doses of x-ray irradiation. *HortScience* 40: 424-427.

Barkai-Golan, R. and P. A. Follett. 2017. *Irradiation for Quality Improvement, Microbial Safety and Phytosanitation of Fresh Produce*. Academic Press, Elsevier: Amsterdam.

- [39] **Control mortality.** The TPPT discussed that in the study the control mortality (failure to reproduce) seems quite high (approximately 3 offspring/ female, that is considered low) and agreed to request clarification from the submitter on the circumstances of the insect rearing and exactly how many F1 adults were produced in the controls.
- [40] The TPPT agreed to recommend the treatment to the SC for addition to the work program with priority 2 due to its economic importance, but to request clarification from the submitter.
- [41] The TPPT:
- (2) *recommended* the “Irradiation treatment for *Omphisa anastomosalis* (2018-042)” to the Standards Committee (SC) for inclusion in the *List of topics for IPPC standards* (i.e. for inclusion in the TPPT work programme), with priority 2 and Mr Toshiyuki DOHINO as the Treatment Lead, so that the TPPT can better assess the information from the submitter
 - (3) *asked* the submitter to provide further information on
 - If late pupae that were tested
 - What were the emergence rates (F1 adults) in the control
 - Why is there low performance of controls

4. Other Business

- [42] The Secretariat confirmed the location and date of the next face to face meeting: 8-12 July 2019, Vienna Austria.
- [43] The Steward of the TPPT informed the TPPT on recent discussions of the SC at the e-forum (2019_eSC_May_01: Selection of TPPT members). He explained that it was unclear whether specific expertise was needed to complement the existing members. One SC member proposed at the e-forum that the TPPT considers the issue.
- [44] The Secretariat added, that the expertise of the members in different treatment types is included in the membership list⁹ and that the panel’s tasks and responsibilities are outlined in their Specification (TP 3)¹⁰.
- [45] The TPPT agreed to consider what expertise could be necessary at their next virtual meeting so the Steward of the TPPT could report back to the SC at their 2019 May meeting.

5. Close of the Meeting

- [46] The Secretariat thanked the TPPT members for their active participation and hard work in 2018 highlighting the fruitful and productive face to face meeting, and closed the meeting.

⁹ TPPT membership list: <https://www.ippc.int/en/publications/81655/>

¹⁰ TP 3: <https://www.ippc.int/en/publications/1308/>

Appendix 1: Agenda**2018 DECEMBER VIRTUAL MEETING OF THE TECHNICAL PANEL
ON PHYTOSANITARY TREATMENTS (TPPT)**

12 December 2018

AGENDA

AGENDA ITEM	DOCUMENT NO.	PRESENTER
1. Opening of the meeting		
1.1 Welcome by the IPPC Secretariat and introductions	02_TPPT_2018_Dec	MOREIRA KISS / ALL
1.2 Adoption of the agenda and election of the rapporteur	01_TPPT_2018_Dec	KISS / ALL
2. Updates from the Secretariat		
2.1 2018 November Standards Committee meeting <ul style="list-style-type: none"> ❖ Invited expert ❖ Adjustments to the work program 	10_TPPT_2018_Dec	OPATOWSKI /MOREIRA
3. TPPT work programme		
3.1 Objection to the Heat treatment of wood using dielectric heating (2007-114) – <i>version presented to CPM-12 (2017)</i> <ul style="list-style-type: none"> ❖ Responses to the objection ❖ Additional information ❖ Main references: Dubey <i>et al.</i> (2016) and Hoover <i>et al.</i> (2010) 	2007-114 08_TPPT_2018_Dec 09_TPPT_2018_Dec 04_TPPT_2018_Dec 05_TPPT_2018_Dec	ORMSBY
3.2 Cold treatment of <i>Ceratitis capitata</i> on <i>Vitis vinifera</i> (2017-023A) <ul style="list-style-type: none"> ❖ Treatment Leads notes ❖ De Lima <i>et al.</i> (2017) 	Link to the TPPT e-forum 2017-023A 11_TPPT_2018_Dec 07_TPPT_2018_Dec	DOHINO/ OPATOWSKI
3.3 Irradiation treatment for <i>Omphisa anastomosalis</i> eggs, larvae and pupae (2018-042) <ul style="list-style-type: none"> ❖ Checklist for evaluating treatment submissions and Prioritization score sheet ❖ Reference: Follett (2006) 	Link to submission 2018-042 03_TPPT_2018_Dec 06_TPPT_2018_Dec	DOHINO

	AGENDA ITEM	DOCUMENT NO.	PRESENTE R
4.	Other business <ul style="list-style-type: none">❖ Face to face meeting: 8-12 July 2019, Vienna Austria❖ Leads for the new submissions	-	KISS
5.	Close of the meeting	-	KISS