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International Plant Protection Convention

REPORT

Technical Panel on Phytosanitary Treatments

Tucumán, Argentina
24–28 June 2024

IPPC Secretariat

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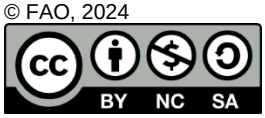

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1. Opening of the meeting

[1] The International Plant Protection Convention (IPPC) Secretariat (hereafter referred to as the "secretariat") welcomed the members of the Technical Panel on Phytosanitary Treatments (TPPT) and thanked the national plant protection organization (NPPO) of Argentina for hosting the meeting in Tucumán at the Estación Experimental Agroindustrial Obispo Colombres (EEAOC).

[2] Diego QUIROGA, Director Nacional de Proteccion Vegetal (SENASA), addressed the members and welcomed them to Tucumán. He noted the significance of the event being held at the EEAOC headquarters, given the key role EEAOC plays in the province of Tucumán in developing knowledge to improve the competitiveness of the productive sector in Argentina. He also highlighted the longstanding, joint work between the agency and SENASA. He acknowledged the importance of the TPPT as not only a forum to discuss phytosanitary treatments (PTs) but also for the entire IPPC community, given the relevance that the treatments have in the international trade of plant products. Further, as a member of the Commission on Phytosanitary Measures (CPM) Bureau, he recognized the key role played by the TPPT in the development of PTs.

[3] Daniel PLOPER, Technical Director of EEAOC, welcomed members and noted the importance of the facility as the first agricultural experimental station in Argentina. He explained that this provided the opportunity for research to be conducted to make significant improvements to crop production. Impressively, the 115th anniversary of the station would be celebrated in July 2024.

2. Meeting arrangements

Election of the chairperson

[4] The TPPT elected Meghan NOSEWORTHY as chairperson.

Election of the rapporteur

[5] The TPPT elected Scott MYERS as rapporteur.

Adoption of the agenda

[6] The TPPT reviewed and adopted the agenda (Appendix 1).

3. Administrative matters

Documents list

[7] The TPPT reviewed the documents list (Appendix 2).

Participants list

[8] The participants list is presented in Appendix 3.

[9] The secretariat was represented by Artur SHAMILOV (secretariat lead) and Colleen STIRLING (secretariat support).

Local information

[10] Further information was provided regarding the local arrangements and logistics.

4. Outcomes of May 2024 Standards Committee and updates from other governing body meetings and IPPC Secretariat

[11] The secretariat noted the outcomes of the May 2024 meeting of the Standards Committee (SC), provided updates from other governing body meetings and the secretariat,[1] and highlighted aspects for consideration by the TPPT during the week.

[12] The secretariat confirmed that the SC had agreed with the proposals put forward by the TPPT on the criteria for the evaluation of potential ISPM 15 (*Regulation of wood packaging material in international trade*) treatments. The SC had agreed to the TPPT's recommendation that the criteria be placed in the *IPPC procedure manual for standard setting* and had requested that the TPPT develop the text. Furthermore, the SC had agreed that the corresponding topic (*Criteria for treatments for wood packaging material in international trade* (2006-010)) could be removed from the *List of topics for IPPC standards* (LOT) as an ISPM and included in the workplan of the TPPT for inclusion in the procedure manual. Once the text was developed it would be presented to the SC for approval. The TPPT discussed this further in agenda item 7.2.

[13] The secretariat reported that the SC had also agreed with the proposal from the Technical Panel for the Glossary (TPG) that the TPPT look at the definition of the term "treatment schedule". The SC had requested that the TPPT consider the need for revision of this term, specifically the replacement of the wording "intended outcome" with "required response", since the latter is currently a glossary term.

[14] The TPPT noted that the term "treatment schedule" had come about with the development of ISPM 15 and had subsequently been included in ISPM 5 (*Glossary of phytosanitary terms*), with the drafters of ISPM 15 developing the definition. In ISPM 15, the treatment outcome was always mortality, therefore the definition was used to explain the concept of mortality at a certain level, or efficacy. However, ISPM 18 (*Requirements for the use of irradiation as a phytosanitary measure*) had a wider range of outcomes, not just mortality. Where ISPM 18 referred to treatment schedules, it outlined the fact that there was more than one way of achieving the outcome, which broadened the term "treatment schedule" and the idea of what a treatment should achieve.

[15] TPPT members agreed that the term "required response" would fit better in the definition than "intended outcome" as a technical term, as it was broader and encompassed more of what the definition was trying to achieve, as well as aligning with ISPM 18.

[16] The TPPT noted that, following these discussions, the TPG would be advised of the decision of the TPPT to support the replacement of the term "intended outcome" with "required response". The TPG would look to put together the justification for the proposed amendment, which would be put forward for consultation as part of the amendments to ISPM 5.

[17] The TPPT:

(1) *noted* the updates and requests from the SC; and

(2) *agreed* with proposal from the TPG that the term "intended outcome" be replaced with "required response" in the definition of "treatment schedule" and *recommended* that the definition of "treatment schedule" be revised to reflect that.

5. Draft phytosanitary treatments in the work programme

[18] The secretariat provided the TPPT with an overview of the draft PTs in the TPPT work programme.[2]

[19] At the time of this meeting, the TPPT work programme included the development of 16 phytosanitary treatments and one draft ISPM on *Requirements for the use of chemical treatments as a phytosanitary measure* (2014-003), as listed in the LOT.

[1] 20_TPPT_2024_Jun.

[2] 05_TPPT_2024_Jun.

[20] The secretariat highlighted that the SC had approved the following four PTs for first consultation in May 2024 via e-decision:

- draft annex to ISPM 28 (*Phytosanitary treatments for regulated pests)*: Irradiation treatment for *Planococcus lilacinus* (2023-035);
- draft annex to ISPM 28: Irradiation treatment for *Paracoccus marginatus* (2023-034);
- draft annex to ISPM 28: Irradiation treatment for *Pseudococcus baliteus* (2023-033); and
- draft annex to ISPM 28: Combination of irradiation and modified atmosphere treatment for *Trogoderma granarium* (2023-032).

[21] The TPPT work programme was further discussed under agenda item 10.1.

[22] The secretariat also provided participants with an overview of the standard setting process. They informed the TPPT that discussions were underway on the roles of stewards and assistant stewards of technical panels, noting the differing activities compared with the stewardship of ISPMs. They confirmed that updates could potentially be included in the procedure manual and the TPPT would be advised of any amendments.

5.1 New submission: Vapour heat (hot steam) treatment of coniferous bark for the elimination of *Bursaphelenchus xylophilus* (2024-001)

[23] The Treatment Lead, Scott MYERS, presented the submission form,[3] the references provided, the draft PT,[4] the checklist for the draft PT,[5] supporting information provided by the submitter and the treatment lead summary.[6]

[24] The proposal had been submitted by Portugal in 2024. The treatment schedule proposed was a vapour heat treatment of bark and wood chips at a temperature of 64 °C for 30 consecutive minutes, resulting in the mortality of all stages of *Bursaphelenchus xylophilus*.

[25] The treatment lead noted that vapour heat treatment is currently used in some commercial facilities in Portugal to prevent the movement of pinewood nematode, with varying treatment temperature. The submission included 15 documents that provided information on the commercial development and application of the treatment and that confirmed that "vapour heat treatment" was used in the commercial facilities that conducted the efficacy tests. The testing involved subjecting bags of wood chips, known to be infested with *Bursaphelenchus xylophilus*, to vapour heat and then assessing if any were alive following this process.

[26] The treatment lead explained that the data included in the submission came from a series of un-replicated treatments at the commercial facilities. The treatments far exceeded the parameters of the treatment schedule in both treatment temperature and duration, and it was unclear how the submitter had arrived at the temperature and duration proposed in the treatment submission. The treatment lead commented that further information may therefore be required to clarify this aspect. This posed a challenge when assessing if the prescribed treatment of 64 °C for 30 consecutive minutes was effective. It was noted, however, that the proposed treatment temperature was higher than that prescribed in ISPM 15.

[27] The TPPT noted highlighted that neither the mortality at no dose nor the most tolerant stage were recorded, thus preventing the TPPT from assessing the minimum dose required to achieve a high efficacy. Neither could the number of treated nematodes nor the resulting efficacy be calculated based on the data provided in the submission, noting the lack of control data from untreated bark and wood chips.

[3] 06_TPPT_2024_Jun.

[4] 2024-001.

[5] 07_TPPT_2024_Jun.

[6] 17_TPPT_2024_Jun.

[28] Following the overview of the submission, the TPPT questioned why the submission was required if the temperature and duration of the propose treatment schedule is higher than that specified in ISPM 15. However, they recognized that ISPM 15 is for wood packaging only and currently there is nothing under ISPM 28 for the heat treatment of wood against nematodes, therefore this proposal would provide a treatment that has a wider application than just wood packaging material.

[29] Based on the panel's knowledge of similar treatments, the TPPT considered that this schedule would be highly effective; however, the submission lacked the scientific rigour and data that is typically included. The TPPT noted that the proposal demonstrated that the treatment was effective commercially; however, it was lacking evidence of the most tolerant stage and the minimum effective dose. Acknowledging this, it had been suggested in the treatment lead summary that the TPPT may consider whether data supporting ISPM 15 would be applicable to this treatment submission. However, it was subsequently noted that these data were not available.

[30] The chairperson advised the panel about an intended treatment submission from Canada. The panel was also advised that the heat treatment work for pinewood nematode was originally done by Canada, and this work included data showing an actual lethal dose of 52 °C for 30 minutes.

[31] The TPPT discussed the topic of the most tolerant stage as one of the key areas for consideration. In the above-mentioned draft submission, the most tolerant stage was stated as J3 larvae; however, some instances noted that it was J4 larvae. The panel noted that J4 is the larval stage where the larva attaches and travels on the beetle; however, this is only for a very short period, as it leaves the beetle once it enters the wood and moults into an adult. This therefore posed difficulties for the testing of J4 larvae and no known heat treatment work had been done on this stage to date.

[32] The TPPT recalled the previous work of the Technical Panel of Forest Quarantine, noting that this work took place with the view that all life stages were present in the treated sample, because of the rapid life cycle of the nematode. Ultimately, this work had demonstrated no evidence of tolerance for heat treatments.

[33] The chairperson advised that there would be testing conducted on this during the year to contribute to the proposed heat treatment submission from Canada. This in turn may support the 2024-001 submission by collecting data related to the most tolerant stage and the minimum lethal dose, currently omitted from the 2024-001 submission.

[34] Regarding methods to determine mortality, one TPPT member suggested that *Botrytis* fungi could be introduced to the wood, following treatment, and as the fungus grew, any surviving nematodes would emerge to feed, making them easier to identify.

[35] Regarding the absence of a recorded core temperature, it was noted that in the supporting document 10, a thermocouple was embedded in one wood chip, which was placed in the middle of the bag, and the bag was then placed in the middle of a large container before the treatment to record the core temperature. This showed that the heat sufficiently penetrated the bag, and the TPPT felt that this penetration may not be considered an issue but further information could be sought from the submitter.

[36] The TPPT:

(3) *recommended* that the SC add the draft PT Vapour heat (hot steam) treatment of coniferous bark for the elimination of *Bursaphelenchus xylophilus* (2024-001) to the TPPT work programme with priority 3.

(4) *agreed* to notify the submitter and request further information, including data on control mortality, whether they have worked to identify the minimum lethal dose and the most tolerant life stage, confirmation that the temperature reached the core of the samples, and clarification on the procedure (such as how the submitter arrived at the temperature and duration proposed in the treatment submission);

(5) *agreed* that Scott MYERS would prepare the questions for the submitter and provide these to the secretariat for distribution; and

(6) *agreed* that Meghan NOSEWORTHY would follow up with Canada regarding the proposed submission from Canada, to identify data that may potentially support this treatment submission, and once these data were available, assess proposal 2024-001 in parallel with the submission from Canada.

5.2 Cold treatment for *Zeugodacus tau* on *Citrus sinensis* (2023-004) – priority 1

[37] The Treatment Lead, Toshi DOHINO, introduced the draft PT[7] and treatment lead summary.[8]

[38] The treatment lead noted that the TPPT had evaluated the submission at their virtual meeting in August 2023.[9] The submitter had supplied detailed data (fruit temperature during confirmatory testing) in September 2023 in response to a request by the TPPT. The secretariat had sent the TPPT's evaluation to the submitter on 15 May 2024, and the submitter had responded that there were no plans to conduct further cold treatment work with *Zeugodacus tau*.

[39] The treatment lead suggested that if there was any literature indicating that the most cold-tolerant stage of *Zeugodacus tau* in orange is the third-instar larva, the TPPT could examine the content and, if possible, cite it and further consider the draft PT. This suggestion was based on the consideration that if this draft PT was taken forward to the first consultation, there may be opinions that if large-scale confirmatory tests could be carried out with orange, tests to determine the most tolerant stage could also be carried out with orange instead of zucchini.

[40] Following the review of the paper, TPPT members agreed that it would be preferable to wait until a published paper was found to be available.

[41] The TPPT also agreed that if the treatment was proposed for *Citrus sinensis*, the TPPT should have research on the most tolerant life stage. It was highlighted that although some testing had been done in relation to zucchini, it would be better to review data in relation to *Citrus sinensis.*

[42] Vanessa DIAS DE CASTRO noted that she did have relevant information available and data from the efficacy testing could be used for a comparison. Therefore, it was proposed that these data could be used to help progress this treatment. She agreed to undertake further analysis of the available information and look to undertake further comparisons between the two datasets. However, it was noted that the two studies indicated that the egg is the most tolerant stage.

[43] The TPPT:

(7) *agreed* to await further analysis and evaluation of the data from Vanessa DIAS DE CASTRO's study to allow for effective comparison between the referenced tests; and

(8) *agreed* to include this draft PT for discussion at the next meeting.

5.3 Methyl iodide fumigation of *Carposina sasakii* on *Malus ×domestica* (2023-006) – priority 3

[44] The Treatment Lead, Scott MYERS, introduced Takashi KAWAII who provided an update on the registration status of methyl iodide in Japan.[10]

[45] Mr KAWAII recalled that the TPPT had discussed this treatment at its October 2023 meeting and had recommended not to progress further until the active ingredient, methyl iodide, was registered for use on fresh commodities. The secretariat had subsequently contacted the Ozone Secretariat for further information on the registration status of methyl iodide and had been advised of the progress in registering the product for use on fresh commodities in Japan.

[7] 2023-004.

[8] 08_TPPT_2024_Jun.

[9] 2023-08 TPPT meeting report: https://www.ippc.int/en/publications/93142/

[10] 24_TPPT_2024_Jun.

[46] Mr KAWAII explained that, in February 2024, the Methyl Bromide Technical Options Committee had been advised that a methyl iodide registration holder had applied for a new registration for the use of methyl iodide on fresh commodities, including broccoli and asparagus. More recently, in June 2024, the Technical Committee of Pesticide had compiled the draft deliberation results and the public comment period on the draft would be open from 5 June to 4 July 2024.

[47] Mr KAWAII informed the TPPT that, if no serious issues arose during the public comment period, the health impact assessment of the Food Safety Commission would be considered complete. Subsequently, the Consumer Affairs Agency would set the maximum residue limits of methyl iodide to fresh commodities and, once these were set, the Ministry of Agriculture, Forestry and Fisheries would register the fumigant methyl iodide for application to fresh commodities. The TPPT noted, however, that the process for registration can be lengthy, therefore approval for the use of methyl iodide on fresh commodities may not occur until 2025.

[48] The TPPT:

(9) *noted* the update; and

(10) *agreed* to wait for the registration to be completed before returning to this treatment.

5.4 Irradiation treatment for all stages *Aspidiotus destructor* (2021-029) – priority 1

[49] The Treatment Lead, Guoping ZHAN, introduced the draft PT[11] and provided an update on the treatment evaluation following the discussions at the February 2024 TPPT meeting.

[50] The treatment lead recalled that, at their meeting in February 2024, the TPPT had discussed that chapter 7 of the doctoral thesis by Salahuddin (2016) may be beneficial in addressing the questions posed by the TPPT regarding dose mortality. The treatment lead had therefore contacted Dr Salahuddin for further information regarding the dose mortality, as outlined in the thesis, and subsequently the secretariat had also reached out to the NPPO, but no further information had been received to date.

[51] However, the treatment lead also advised that, after further consideration of this thesis, it had become apparent that the data regarding the number of treated F1 instar nymphs reflected the data in the paper of Khan *et al.* (2016), therefore reference to the latter paper was still recommended.

[52] Additionally, one TPPT member advised the panel of correspondence with Peter FOLLETT regarding control mortality and estimating the efficacy of the treatment. It had been identified that there were difficulties in determining the efficacy because of the recording of the control mortality. Communication from Peter FOLLETT confirmed that no additional data were available beyond what was provided in Follett (2006).

[53] The TPPT noted that one of the issues to consider was the difficulty in working with the insect, as it is the adult females with eggs that are irradiated, as this is the most tolerant stage, and then the offspring from those eggs are assessed. Factors affecting the interpretation of results could therefore include the possibility that the mortality rate deduced from the paper may be a result of an insect carrying non-viable eggs (i.e. the natural mortality rate), or it may be affected by the environment in which the insects were reared, as the absence of biocontrols under laboratory conditions would affect the mortality rate.

[54] Members noted that the *IPPC procedure manual for standard setting* included a requirement for a mortality rate of 10% or lower, and if it is higher, justification must be provided. The manual does not require, justification for control mortality higher than 10%, however further explaining the biology of the insect is helpful for understanding control mortality in this context.

[55] Members of the TPPT voiced concerns over the data in the supporting papers, with inconsistencies between the data of Khan *et al.* (2016) and Follett (2006), including that some control numbers were

[11] 2021-029.

counted whereas others were calculated (estimated). Therefore, consideration must be given to the estimated counts and actual counts.

[56] The TPPT noted that there were gaps in the control data provided. However, noting the absence of further available data and the consensus of the TPPT that the efficacy appeared to be sufficient, the TPPT agreed that further analysis of the control data provided would make for a more defendable decision if the TPPT were to agree to recommend this treatment for presentation to the SC.

[57] Members concluded that even though the Follett (2006) publication had been submitted by Follett, the data provided by Khan *et al.* (2016) looked to be sufficient as a basis for further assessment.

[58] One TPPT member suggested and another member agreed to contact Andrew PARKER, copying the treatment lead into the correspondence, to ask if the data on the individual counts were available to allow the mean to be calculated.

[59] The TPPT felt that this was a feasible treatment, with the challenge being the confirmation of the control mortality.

[60] The TPPT:

(11) *agreed* that Vanessa DIAS DE CASTRO and Guoping ZHAN would contact Andrew PARKER to find additional data to support this submission; and

(12) *agreed* to await the requested further information, to be discussed at the next TPPT meeting.

5.5 Vapour heat treatment for *Planococcus lilacinus* (2021-028) – priority 1 (from first consultation)

[61] The Treatment Lead, Michael ORMSBY, introduced the treatment and provided an update on the status.

[62] The treatment lead recalled that the TPPT had discussed this treatment at its October 2023 meeting. Noting some questions posed during consultation,[12] the TPPT had agreed to request further information from the submitter to clarify the infestation method and how the transferred adults were attached to the new dragon fruit hosts within 4–6 hours, the colony age, and the age of the females treated in the life-stage testing. Clarification was also sought on whether the adult females of *Planococcus lilacinus* that were not attached (fixed) to the fruit had an equal or greater tolerance to heat than adult females attached (fixed) to the fruit.

[63] The TPPT:

(13) *noted* the request to the submitter for further information; and

(14) *agreed* to wait for the response before proceeding further.

5.6 Irradiation treatment for all stages of the family *Pseudococcidae* (generic) (2017-012) – priority 1

[64] The Treatment Lead, Daojian YU, introduced the draft PT [13] and treatment lead summary.[14]

[65] The treatment lead recalled that, at its Vienna meeting in 2019, the TPPT had asked the submitter to consider either restructuring the draft of 2017-012, targeting separately important genera in the family, or gathering more data and attempting to cover more species with economic importance globally. The submitter had also been asked to identify the most resistant species in the group. In addition, the TPPT had invited the Phytosanitary Measures Research Group (PMRG) to identify the economically important *Pseudococcidae* species, especially the ones considered as quarantine pests in their regions, and gather available studies covering *Pseudococcidae* species.

[12] 09_TPPT_2024_Jun.

[13] 2017-12.

[14] 10_TPPT_2024_Jun.

[66] The treatment lead then provided a further update on the phytosanitary irradiation research for mealybugs of the family *Pseudococcidae*. It was highlighted that the Coordinated Research Project (CRP) D61026 on "Novel Irradiation Technology for Phytosanitary Treatment of Food Commodities and Promotion of Trade" had been accepted by the International Atomic Energy Agency (IAEA), with mealybugs of the family *Pseudococcidae* accepted as one of the generic treatments. From the report of the First Research Coordination Meeting D61026-CR-1 in 2022, 11 mealybug species (family *Pseudococcidae*) – *Paracoccus marginatus*, *Phenacoccus madeirensis* and *Pseudococcus baliteus* from China, *Ferrisia virgata*, *Pseudococcus longispinus* and *Rastrococcus spinosus* from Viet Nam, and *Dysmicoccus brevipes*, *Rastrococcus spinosus*, *Rastrococcus jabadiu*, *Ferrisia virgata* and *Pseudococcus cryptus* from Indonesia – had been considered in CRP D61026 "Generic dose development of *Pseudococcidae*" and the development of methods for dose evaluation were also being considered. The Second Research Coordination Meeting D61026 had been held in 2023, but the meeting report was not yet available.

[67] Furthermore, the treatment lead noted that, following the October 2023 TPPT meeting, three mealybug irradiation treatments submitted by China (Irradiation treatment for *Pseudococcus baliteus* (2023-033), Irradiation treatment for *Paracoccus marginatus* (2023-034), Irradiation treatment for *Planococcus lilacinus* (2023-035)) had been presented to, and approved by, the SC for consultation.

[68] The treatment lead advised that the next CRP meeting would be held in September 2024, with discussions to include consideration of a generic treatment with a dose of 250 Gy. Noting the research currently underway within the CRP, the TPPT considered that it would be beneficial to await the outcomes of the September 2024 meeting, as this would provide further data to support the evaluation.

[69] The TPPT:

(15) *noted* the update on the draft PT Irradiation treatment for all stages of the family *Pseudococcidae* (generic) (2017-012); and

(16) *noted* the generic treatment research D61026 for family *Pseudococcidae*; and

(17) *agreed* to await the report from the September 2024 CRP meeting for additional data to progress the evaluation.

5.7 Irradiation treatment for *Epiphyas postvittana* (2017-018) – priority 1

[70] The Treatment Lead, Daojian YU, introduced the draft PT[15] and treatment lead summary.[16]

[71] The treatment lead advised that the submitter had provided further information to the TPPT in relation to why fifth-instar larvae rather than sixth-instar larvae had been chosen as the most tolerant stage in Follet and Snook (2012). The submitter had noted that Dentener, Waddell, Batchelor (1990) was the only other irradiation work for *Epiphyas postvittana*, and fifth instars were assumed to be the largest size larvae irradiated just before they started pupating. However, there were still questions around the infestation methods, the artificial diet and the number of treated insects.

[72] The TPPT noted that the last time the draft PT had been amended was 2018, with minor amendments in February 2024.[17] Therefore, the secretariat encouraged the treatment lead to consider developing further questions for the submitter or decide if it was to remain on the work programme.

[73] The TPPT considered the method used when collecting data related to the irradiation of insects on fruit. It was noted that the process involved taking an insect on artificial diet and placing it inside the fruit, before treatment. The possibility of the insects adopting a Preparation for Oxidative Stress strategy was raised as a potential factor that may influence the outcomes of the tests on fruit; therefore, it was suggested that evaluation of the treatment consider solely data related to insects treated on artificial diet.

[15] 2017-018.

[16] 11_TPPT_2024_Jun.

[17] 2024-02 TPPT meeting report: https://www.ippc.int/en/publications/93280/

[74] The TPPT agreed that the host did not affect the effectiveness of irradiation treatment. Furthermore, the TPPT noted that previous treatments had been approved based on artificial diet alone, with irradiation tests on a singular host but the treatment approved for all hosts, such as PT 45 (Irradiation treatment for *Pseudococcus jackbeardsleyi*). It was therefore questioned whether enough data were available in Follet and Snook (2012) to allow for the treatment to be considered purely on the testing conducted on artificial diet alone.

[75] Subsequent to the above discussions, further analysis was conducted by calculating the treated numbers. The numbers needed to be adjusted for control mortality (Abbot's principle). The mortality in the controls of the larvae inserted into fruit was significantly higher (~35%) than the control mortality on the diet (27%). This excess mortality was therefore excluded, which gave 25 522 treated fruit or 99.9882% efficacy at the 95% confidence level as outlined in Table 1.

Table 1 – Revised treated and control data

	Treated no.	No. survivors	Adjusted no.
Treated	34 997	0	25 522
Control	2 966	2 163	27.07%

[76] The TPPT agreed to exclude the data related to the testing on fruit (apple and pepper) because of the very high mortality rate that may directly correlate to the stress of the testing method. Therefore, the TPPT recommended using the end-point of adult emergence at a dose of 149 Gy to align with the data related to an artificial diet, as reflected in Follet and Snook (2012). It was also recommended that consideration be given to including justification in the draft PT for this decision to assist the consultation process.

[77] Following further consideration of available literature, the TPPT agreed to continue the reference to Follet and Snook (2012) as there was higher confidence in the dosimetry used.

[78] The TPPT then revised the draft PT (2017-018) for consistency with established PTs, including amendments to the text such as removing the order and family from the title, including the authority name for the target pest and the scientific name for the target regulated articles, and referring to "all fruits, vegetables and ornamental plants that are hosts" rather than "all fresh commodities".

[79] Following the further analysis by the TPPT, the scope of the treatment was amended to reflect the treatment dose of 149 Gy, with a confidence of 95% that the treatment prevented adult emergence from not less than 99.989% of eggs and larvae of *Epiphyas postvittana.*

[80] The TPPT included an additional paragraph to note that the efficacy of the schedule was calculated based on 25 522 fifth-instar larvae, reared and treated on artificial diet with no adult emergence; in the control, development of pupae from fifth-instar larvae was estimated at 87.6%. The reference previously included regarding the 200 Gy treatment dose, as reflected in the Animal and Plant Health Inspection Service Treatment Manual, was removed as adults were not included in the target of the treatment.

[81] As agreed by the TPPT during the discussions, a paragraph was included to provide context around the treatment efficacy, noting that the extrapolation of treatment efficacy to all fruits, vegetables and ornamental plants was based on knowledge and experience that radiation dosimetry systems measure the actual radiation dose absorbed by the target pest independent of host commodity, and evidence from research studies on a variety of pests and commodities, with relevant references included.

[82] Other relevant amendments included additional information that eggs, larvae and pupae may be encountered during the inspection process, and a note that this treatment was not effective against pupae associated with some commodities at the time of the treatment, as per Follet and Snook (2012), with the removal of the example of table grapes.

[83] The TPPT:

(18) *recommended* the draft PT Irradiation treatment for *Epiphyas postvittana* (2017-018), as revised at this meeting, to the SC for consultation.

5.8 Irradiation treatment for *Frankliniella occidentalis* on all fresh commodities (2017-019) – priority 3

[84] The Treatment Lead, Toshiyuki DOHINO, introduced the treatment lead summary[18] and provided an update on the status of this treatment.

[85] The treatment lead recalled that this treatment had been submitted by the official IPPC contact point for the United States of America in June 2017 and had been evaluated by the TPPT at their virtual meetings in March 2018,[19] February 2019 and July 2021.[20] The proposed treatment schedule was a minimum absorbed dose of 250 Gy to prevent reproduction in adults of *Frankliniella occidentalis.* The schedule was supported by Nicholas and Follett (2018) and Nicholas *et al.* (2018).

[86] The treatment lead noted that, during their discussions, the TPPT had agreed that further tests were needed to proceed with this treatment. They had requested that the submitter provide further information and that the PMRG consider how to conduct further research on this pest. The TPPT had agreed to await the result of these further studies, but the COVID-19 pandemic had delayed the progress of these. The TPPT had agreed to consider this treatment once the studies had been conducted.

[87] The treatment lead confirmed that, in May 2024, he had contacted the submitter (Peter FOLLETT, United States Department of Agriculture Agricultural Research Service) regarding the further testing and new information. In response, the submitter had advised that further testing of *Frankliniella occidentalis* had been initiated again using the same protocol described in the Hawaii methods of the Nicholas and Follett (2018) paper. Adult females were being irradiated in vials with a small piece of cabbage, then moved to cabbage post-irradiation and the cabbage changed every 2–3 days to look for reproduction. As the eggs could not be seen, the presence of larvae was being used as evidence of successful oviposition, egg hatch, and survival. The submitter had noted that, in a previous test, 1 500 adult females had been irradiated at 250 Gy with no successful reproduction. He had also advised that expansion of the colony was underway to continue with further irradiation of thrips.

[88] The treatment lead invited the TPPT to consider suspending evaluation of this submission because of the low efficacy in Nicholas and Follett (2018) and waiting for further available publications for this submission from the submitter.

[89] The TPPT noted that, while the TPPT required further information from the submitter, publication of the results was not required to continue the evaluation.

[90] The TPPT:

(19) *agreed* to await further results from the submitter before progressing this treatment; and

(20) *agreed* to include this treatment in the agenda for the next face-to-face meeting in 2025.

5.9 Sulfuryl fluoride fumigation treatment for *Chlorophorus annularis* on bamboo articles (2017-028) – priority 2

[91] The Treatment Lead, Eduardo WILLINK, introduced the draft PT and treatment lead summary.[21]

[18] 12_TPPT_2024_Jun.

[19] 2018-03 TPPT meeting report: https://www.ippc.int/en/publications/85772/

[20] 2021-07 TPPT virtual meeting report: https://www.ippc.int/en/publications/91012/

[21] 2017-028; 18_TPPT_2024_Jun.

[92] The treatment lead recalled that the TPPT had previously sought additional information from the submitter regarding egg tolerance at the lower end of the temperature ranges proposed in the schedule and determination of the most tolerant stage.

[93] In response, the submitter had advised that, in 2023, a new national research project of a sulphuryl fluoride fumigation treatment for *Chlorophorus annularis* on bamboo had been initiated. As part of this, the research team had begun to look for a large number of insect-infected bamboo and had collected bamboo poles for the laboratory. After splitting the bamboo, few larvae had been found. Adults of *Chlorophorus annularis* had been collected from the bamboo poles and reared in the laboratory to collect eggs for fumigation testing. The submitter had noted that selecting 21 °C, 96 g/m^3 and 26.5 °C, 80 g/m^3 for fumigation of the eggs would allow further information to be obtained on egg tolerance at the lower end of the temperature ranges. The tests were scheduled to be conducted from June to August 2024.

[94] In regard to the most tolerant stage for the treatment, the TPPT noted that sulphuryl fluoride does not penetrate eggs well, which makes the treatment of eggs very difficult. Hence, the egg was the most tolerant life stage. The TPPT also recognized that it was difficult to collect the required number of insects from the field. The TPPT therefore agreed to await the results from the further testing, taking into account the time frame that is needed for the collection of insects.

[95] The TPPT considered whether one option could be to let the insects lay eggs in the bamboo, then collect the larvae from the bamboo. One TPPT member questioned whether the insects could survive if the bamboo is cut and it dries out, but another member confirmed that the insects could still survive and lay eggs in the bamboo, even after cutting and potential moisture loss.

[96] The TPPT:

(21) *agreed* to await further information from the additional testing before progressing with this submission.

5.10 Generic irradiation treatment against all insects except *Lepidoptera* larvae and pupae (2017-030) – priority 2

[97] The Treatment Lead, Scott MYERS introduced the treatment and noted the previous discussions as per the September 2022 TPPT meeting.[22]

[98] At this meeting, Treatment Lead reiterated that there was a need to collect a large number of studies to form the basis of this treatment. The TPPT concluded that they would work with the IAEA and wait for the results of the IAEA's CRP on generic doses for insect groups.

[99] Vanessa DIAS DE CASTRO provided a further update from the CRP, noting that one of the goals was to have a treatment dose of under 400 Gy and to have enough evidence to support the 300 Gy treatment.

[100] Following agreement to await the outcomes of the further material collected through the CRP, it was suggested that, once compiled, consideration could be given to the scope of this treatment as it currently excluded Lepidoptera larvae and pupae. The minimum dose could also be considered, based on the evidence provided to support this.

[101] The TPPT:

(22) *agreed* to continue evaluation of this treatment once the data from the CRP were compiled; and

(23) *agreed* to assign Vanessa DIAS DE CASTRO as the treatment lead.

[22] 2022-09 TPPT meeting report: https://www.ippc.int/en/publications/92187/

5.11 Phytosanitary irradiation treatment of fresh commodities against *Liriomyza sativa*, *L. trifolii* and *L. huidobrensis* (2018-001) – priority 2

[102] Following the departure of the previous treatment lead, Vanessa DIAS DE CASTRO had been selected as the treatment lead for this subject[23]. She introduced the draft PT and treatment lead summary.[24]

[103] The treatment lead recalled that the submission for the draft PT Phytosanitary irradiation treatment of fresh commodities against *Liriomyza sativa*, *L. trifolii* and *L. huidobrensis* (2018-001) had been submitted by the Ministry of Agriculture and Livestock of Türkiye in January 2018. The treatment submission proposed a minimum absorbed dose of 175 Gy to prevent the formation of leaf mines by F_1 larvae of *L. sativa*, *L. trifolii* and *L. huidobrensis*. Two references supported the proposed treatment.

[104] Outlining the background of the submission and evaluation, the treatment lead noted that following their evaluation the TPPT had agreed to recommend the treatment to the SC for inclusion in the LOT[25] with priority 2. Additionally, the TPPT had agreed to ask the submitter to clarify three aspects: (1) the maximum absorbed dose, (2) the taxonomic identification of the regulated pests, and (3) the efficacy calculation.[26]

[105] Regarding the maximum absorbed dose, it had been noted previously by the TPPT that the table that presented the dosimetry data did not explicitly mention whether the numbers following the "±" symbol denoted the standard deviation, the standard error or the total measurement, which made inferences about the actual maximum dose difficult. However, the treatment lead summary pointed out that, by considering the confidence interval reported in the main reference, the maximum absorbed dose could be calculated at 175.7 Gy. The TPPT agreed with these calculations.

[106] The treatment lead noted that the supporting reference provided evidence that the insects used in the study were taxonomically identified. The supporting reference also mentioned that the three species were studied separately, one species per year – a practice that minimized the risk of contamination of the agromyzid colonies used in the study. The TPPT accepted this information as presented.

[107] The treatment lead acknowledged that the treatment efficacy was not calculated in the submission. Furthermore, the lack of information on control insects from the confirmatory tests made it difficult to estimate the treatment efficacy solely based on the supporting reference. The treatment lead had been advised that the data were not available, so the submitter could not access that information. The treatment lead noted, however, that the TPPT could potentially calculate the efficacy using the control mortality data from the submission, as these numbers were actual numbers, not estimates, but TPPT noted the uncertainty about whether there were controls for these tests.

[108] The treatment lead highlighted that this treatment had been presented at three previous CRP meetings. Therefore, it could be assumed either that there were control data available that had not yet been provided or that the control mortality was very low (below 5%) and this had not been noted.

[109] The secretariat advised the TPPT of recent communication with the NPPO of Türkiye regarding the submission, as it was recognized that the NPPO had not initially provided support. The secretariat had provided the NPPO with the original submission and supporting documentation for consideration and had sought advice as to whether the NPPO was in a position to provide support. The response received had noted that further information would be sought on the subject from the research institutes, with a further reply to be provided following this. The secretariat noted that this may take time; however, if concrete information, or a definite person or institute from which such information could be obtained, was identified, the NPPO of Türkiye could be provided with this advice to help its deliberations.

[23] 2023-10 TPPT Meeting Report: https://www.ippc.int/en/publications/93147/
[24] 2018-001; 13_TPPT_2024_Jun.
[25] *List of topics for IPPC standards*: https://www.ippc.int/en/core-activities/standards-setting/list-topics-ippc-standards/list
[26] 2018-03 TPPT meeting report: https://www.ippc.int/en/publications/85772/

[110] The TPPT:

(24) *agreed* to acknowledge the maximum absorbed dose as 175.7 Gy;

(25) *accepted* the information on the taxonomic identification of the regulated pests as presented in the supporting reference documents noted at this meeting; and

(26) *agreed* that the treatment lead would provide potential contact details and questions to the secretariat for provision to the NPPO of Türkiye.

5.12 Cold treatment of *Drosophila suzukii* on *Vitis vinifera* (2021-027) – priority 1

[111] The Treatment Lead, Eduardo WILLINK, introduced the draft PT and treatment lead summary.[27]

[112] The treatment lead recalled that the TPPT had previously requested further information from the submitter in relation to:

- the exposure times used in life-stage testing and why longer exposure times were not considered;
- why 0 and 2°C temperatures were selected; and
- most tolerant life-stage testing.

[113] The treatment lead reported that the following advice had been received in May 2024 from the submitter, through Guoping ZHAN, noting that further testing had recently been conducted and advising that a comprehensive scientific technical report would be produced and provided in the coming weeks.

[114] The preliminary results for the treatment, provided by the submitter, were as follows:

- The three-day-old pupae were the most cold-tolerant stage, followed by the one-day-old pupae, six-hour-old eggs, four-day-old larvae and two-day-old larvae. This conclusion was based on dose–response tests conducted twice at 0 ℃ and 2 ℃. The dose–response data had been analysed using ANCOVA (including the dose for 100% mortality estimation) and probit analysis, revealing significant differences in cold tolerance, as indicated by non-overlapping 95% confidence intervals of LD90, LD99 and probit 9.
- A total of more than 50 000 three-day-old pupae were treated in each of the large-scale confirmatory tests at 0 ℃ and 2 ℃.

[115] The treatment lead noted that a further paper, which provided additional supporting information, had been received before the meeting and would be posted on the work area for the TPPT to review before the next meeting.

[116] The TPPT:

(27) *agreed* to return to this treatment at the next meeting following the revision of the additional paper by TPPT members.

5.13 Heat treatment of wood using dielectric heating (2007-114) – priority 1

[117] The Treatment Lead, Michael ORMSBY, introduced the draft PT[28] and provided an update on the status and topics for consideration by the TPPT.

[118] The treatment lead noted that this treatment had been submitted for adoption to CPM-12 (2017) but an objection had been raised.[29] Importantly, it had been recognized that the objection related to the implementation of the draft PT rather than the treatment itself.

[27] 2021-027; 23_TPPT_2024_Jun.

[28] 2007-114.

[29] Objection: CPM 2017/INF/19.

[119] The secretariat advised that an IPPC guide relating to regulation of wood packaging material[30] had been published in 2023, with a further two manuals (*Wood packaging material heat treatment manual* (2017-043a) and *Wood packaging material fumigation treatment manual* (2017-043b)) currently in development. These were further discussed in agenda item 7.2. The TPPT noted that these materials may assist in addressing the concerns put forward in the objection.

[120] The TPPT considered whether, if it were recognized that the further guidance material addressed the objection raised, the contracting party could withdraw the objection. The TPPT noted, however, that there was no process in place for this currently, therefore the treatment would need to be resubmitted to the SC for recommendation to the CPM for adoption.

[121] The TPPT:

(28) *agreed* to wait for guidance material to be published and package all information together for resubmission to the SC for adoption by the CPM.

6. Draft ISPMs

6.1 Requirements for the use of chemical treatments as a phytosanitary measure (2014-003) – priority 1

[122] The TPPT Steward, David OPATOWSKI, introduced the draft ISPM[31] and provided background context and required considerations for the progression of the topic.

[123] The steward explained that, in order for the TPPT to fully assess the draft ISPM, the submission of a chemical treatment may be required. He also noted that this topic had been with the TPPT for some time, but the priorities of draft treatments received had taken precedence. The submission of a chemical treatment would significantly assist in the assessment of this topic.

[124] The TPPT:

(29) *agreed* that Mike ORMSBY and David OPATOWSKI would work to develop a first draft according to the annotated template and TPPT procedures, to be discussed at the next face-to-face meeting, noting that a specification already existed for this ISPM.

7. Publications as a basis for ISPM 15 treatment schedules

7.1 Assess whether the model described in Ormsby (2022), and other relevant publications, provide a sufficient basis for the development of treatment schedules for ISPM 15

[125] The author of Ormsby (2022), Michael ORMSBY, presented the paper and associated papers for consideration by the TPPT to support the development of treatment schedules for ISPM 15.[32]

[126] Mr ORMSBY outlined the main groups interested in the development of criteria, which included regulators, industry and researchers wanting practical criteria to conduct research. He recalled that previous discussions on the efficacy for the criteria considered probit 9. However, CPM had rejected probit 9, as it was not a practical measure for researchers for confirmatory trials, and hence there had been a focus on practicality. The papers emphasized that efficacy testing should be done on pests relevant to the pathway, with a key step being confirmatory trials. Mr ORMSBY explained that the papers provided support and evidence for the steps to be considered when developing treatments, thereby giving a basis for the development of treatment schedules for ISPM 15.

[30] IPPC *Guide to the regulation of wood packaging material*: https://openknowledge.fao.org/handle/20.500.14283/cc5059en

[31] 2014-003.

[32] 14_TPPT_2024_Jun; 15_TPPT_2024_Jun; 16_TPPT_2024_Jun.

[127] During subsequent discussions, TPPT members noted that the model described in Ormsby (2022) could help with the development of treatments such as for mango weevil, which had previously been rejected by the TPPT. Additionally, the TPPT noted that the proposed papers by Ormsby (2022), Schortemeyer *et al.* (2011) and Haack *et al.* (2011) aligned with each other regarding the steps outlined.[33]

[128] The TPPT noted that, as agreed at their February 2024 meeting, there would be no need to amend existing treatments when including the proposed amendment in the *IPPC procedure manual for standard setting*.

[129] The TPPT agreed that it would be beneficial to cite all three papers and emphasized that this may stimulate further submissions as there would be clear guidance and requirements.

[130] The TPPT:

(30) *agreed* that the model described in Ormsby (2022), and other relevant publications, provided a sufficient basis for the development of treatment schedules for ISPM 15.

7.2 Developing the criteria around the ISPM 15 treatment testing process and draft ISPM 15 treatment manuals

Draft ISPM 15 treatment manuals

[131] Following on from their discussion under agenda item 5.13, the TPPT further discussed the secretariat's request to consider adding the review of the two draft wood packaging treatment manuals ((*Wood packaging material heat treatment manual* (2017-043a) and *Wood packaging material fumigation treatment manual* (2017-043b)) to the TPPT workplan.[34]

[132] The TPPT expressed a willingness to review the draft documents; however, it was noted that no procedure was in place for technical panels to review draft guides. The TPPT agreed that the SC would need to be consulted to seek guidance on the addition of this task to the TPPT workplan.

[133] The TPPT:

(31) *agreed* on a willingness to review the draft *Wood packaging material heat treatment manual* (2017-043a) and the draft *Wood packaging material fumigation treatment manual* (2017-043b) and the comments received;

(32) *requested* that the secretariat communicate with the SC on this decision and seek approval for, or guidance on, the addition of this task to the TPPT workplan; and

(33) *requested* that Mike ORMSBY, Meghan NOSEWORTHY and Scott MYERS collaborate on the revision of these drafts pending further advice from the SC on the required process.

***Brainstorming of criteria to be included in the* IPPC procedural manual for standard setting**

[134] The TPPT reviewed the draft treatment criteria[35] and identified a number of amendments to be included in the draft criteria, as well as amendments to the format and structure.

[135] The TPPT agreed that a small group would be formed to consider the document and the proposed updates, with Mike ORMSBY nominated as lead, to facilitate discussions at the next TPPT virtual meeting.

[136] The draft criteria (2006-010) were reviewed, with suggested changes drafted in the document based on the considerations of the panel. These draft changes were to be provided to Mike ORMSBY for reference when leading the drafting of the criteria.

[33] 14_TPPT_2024_Jun; 15_TPPT_2024_Jun; 16_TPPT_2024_Jun.

[34] 22_TPPT_2024_Jun.

[35] 2006-010.

[137] Suggested amendments included considering the language throughout the document where there were references to the procedure manual, which may now be superfluous as the intention was to include this in the procedure manual itself.

[138] Further technical considerations included the pathogen list in Table 1, which the TPPT noted was very specific. It was suggested that it may be better to include examples. The TPPT suggested that a proposal be made to the International Forestry Quarantine Research Group (IFQRG) to include on the agenda for their next meeting an item to review the pathogen list to categorize the information by family.

[139] The TPPT noted that it can be difficult to identify, when treating insects in wood, what life stages are being treated. They recalled that treatments had been considered before where it had been impossible to treat a single life stage and so the treatment was to be conducted at a time when the target life stage was more prevalent. The TPPT noted that guidance should be included as to what would be accepted in these instances.

[140] A question was raised about what would be asked of the SC if a related submission now went through the TPPT; also, would the PT be added as an annex to ISPM 15 or ISPM 28, as ISPM 15 requirements covered ISPM 28. The TPPT noted that ISPM 15 schedules were purely for wood packaging materials, while for ISPM 28 the host pathway could be wood more broadly rather than wood packaging material. Furthermore, it was noted that ISPM 28 does not include implementation procedures, whereas ISPM 15 includes these in the treatment descriptions. It was suggested that the TPPT could consider, when submissions are received, whether they could be relevant to ISPM 28 as well, noting that the TPPT was only tasked with drafting criteria for ISPM 15. The secretariat noted that if treatments were submitted for ISPM 15, they must be assessed as such; however, TPPT members noted that ISPM 15 requirements do cover those of ISPM 28. The TPPT concluded that, rather than using solely the type of commodity to determine whether submissions should be included as an annex to ISPM 28 or as treatment for ISPM 15, related submissions would be considered case by case.

[141] The TPPT:

(34) *agreed* that Mike ORMSBY would lead the drafting of the criteria, along with Scott MYERS, to facilitate discussions at the next TPPT virtual meeting; and

(35) *requested* that Meghan NOSEWORTHY add this topic to the agenda of the next IFQRG meeting.

8. Efficacy calculation

8.1 Efficacy calculation method – update on draft amendment to Phytosanitary Measures Research Group guidelines

[142] The TPPT noted that the PMRG guidelines did not currently include the IPPC formula to estimate the number of treated insects.

[143] The TPPT recalled that they had agreed at their virtual meeting in February 2024 that, as there has been a change to the calculations, the PMRG guidelines should be updated to include this formula. The TPPT had agreed that Peter LEACH would draft the changes for provision to TPPT members for review and approval.

[144] The draft changes[36] were presented by Peter LEACH and reviewed by the TPPT.

[145] Suggestions were made to adjust the format and presentation of information to provide a focus on control mortality, with a suggestion to include dummy data which matched the wording of the document.

[146] The TPPT:

(36) *agreed* that Peter LEACH include the suggested amendments and provide the amended text to Scott MYERS (PMRG Chair) to put forward at the next PMRG meeting.

[36] 25_TPPT_2024_Jun.

8.2 Consolidated processes to calculate efficacy

[147] The discussion document was presented by Michael ORMSBY[37]. The document outlined the proposed amendments to the working procedures of the TPPT in section 7.6 of the *IPPC procedure manual for standard setting*, including background information to support the proposed amendments. The document covered the current procedures, the complexities associated with these and the fact that these procedures are for specific circumstances. Mr ORMSBY noted that the proposed text modifications focused on fecundity versus mortality.

[148] The TPPT noted that the information presented in the discussion paper reflected the draft changes presented to the SC in May 2024, with the inclusion of one amendment and additional formulae. These changes would help to address intergenerational changes, with a mortality rate of 10% or lower only to be considered in instances where exceptional factors need to be considered.

[149] The secretariat recalled that the efficacy calculation previously proposed by the TPPT had been approved by the SC, as reflected in Appendix 8 of the SC May 2024 meeting report.[38]

[150] The TPPT then considered the proposed further updates[39] to the "General considerations when calculating the level of efficacy achieved by a treatment schedule" section of the "Procedure for the development of phytosanitary treatments" within the *IPPC procedure manual for standard setting*. They agreed the draft amendments, which included the division of the section into three parts, starting with control mortality, followed by an outline of the calculations, with the third section on viability and control.

[151] The TPPT:

(37) *agreed* to the draft changes as proposed and amended in Annex X of this report, to be presented to the SC in May 2025.

9. Liaison

9.1 Phytosanitary Measures Research Group

[152] Scott MYERS, the Chair of the PMRG, advised that a future meeting was being considered for 2025, with further updates to be provided at the next virtual TPPT meeting.

[153] The TPPT noted that Peter LEACH had been the PMRG chair preceding Scott MYERS, therefore information on PMRG contact details would be updated between the PMRG chair and the secretariat.

9.2 Ozone Secretariat (Vienna Convention and Montreal Protocol / United Nations Environment Programme)

[154] The secretariat highlighted the report of the Ozone Secretariat submitted to CPM-18 (2024).[40]

[155] The secretariat reported that there had been a request from the Ozone Secretariat to renew the memorandum of understanding and the chair of the Methyl Bromide Technical Options Committee had agreed that they would propose potential areas for collaboration and expected outcomes. The IPPC Secretariat would then review and note the next steps.

[156] The TPPT:

(38) *noted* the update regarding the Ozone Secretariat and the Methyl Bromide Technical Options Committee.

[37] 19_TPPT_2024_Jun.

[38] 2024-05 SC meeting report: https://www.ippc.int/en/publications/93540/

[39] 19_TPPT_2024_Jun.

[40] CPM 2024/INF/22: https://www.ippc.int/en/publications/93262/

9.3 International Forestry Quarantine Research Group

[157] The TPPT were advised that the next IFQRG meeting would take place in Rome at FAO headquarters, with support from the secretariat.

[158] The TPPT:

(39) *noted* the update of the International Forestry Quarantine Research Group.

10. Overview of the TPPT workplan

10.1 Development of 2024–2025 workplan

[159] The secretariat presented the draft 2024–2025 TPPT workplan.[41] It was noted that the term "work programme" generally referred solely to the LOT,[42] while the workplan aimed to encompass the LOT and other tasks.

[160] The TPPT reviewed and noted the 2024–2025 workplan[43] (Annex 4), noting that it would be reviewed following the meeting to include agreed updates.

[161] The TPPT noted that further amendments drafted during the meeting would be included in the draft workplan before presentation to the SC for noting.

[162] The TPPT:

(40) *invited* the SC to note the TPPT workplan for 2024–2025.

10.2 Extension of the membership of some TPPT members

[163] The TPPT noted that the membership for TPPT member Peter LEACH was scheduled to come to an end in 2024. Peter LEACH confirmed NPPO support had been provided from the IPPC contact point for Australia for the extension of the membership for another term.

[164] The TPPT:

(41) *recommended* that the SC approve the extension of the TPPT membership of Peter LEACH for another term.

11. Recommendations to the Standards Committee

[165] The following summarizes the TPPT recommendations to the SC from this meeting.

[166] The TPPT invited the SC to:

- *note* the TPPT's agreement to recommend to the TPG that the term "intended outcome" be replaced with "required response" in the definition of "treatment schedule";
- *approve* the addition of draft PT Vapour heat (hot steam) treatment of coniferous bark for the elimination of *Bursaphelenchus xylophilus* (2024-001) to the TPPT work programme with priority 3;
- *approve* the draft PT Irradiation treatment for *Epiphyas postvittana* (2017-018) for consultation;
- *note* that the draft PT Heat treatment of wood using dielectric heating (2007-114) will be presented to the SC for approval to present to the CPM for adoption once the guidelines on dielectric heating are published;

[41] 21_TPPT_2024_Jun.

[42] *List of topics for IPPC standards*: https://www.ippc.int/en/core-activities/standards-setting/list-topics-ippc-standards/list

[43] 21_TPPT_2024_Jun.

- *note* the TPPT's decision to recognize that the papers of Ormsby (2022), Schortemeyer *et al.* (2011) and Haack *et al.* (2011) are sufficient to be used as a basis for the development of schedules in ISPM 15;
- *note* the willingness of the TPPT to review the draft *Wood packaging material heat treatment manual* (2017-043a) and the draft *Wood packaging material fumigation treatment manual* (2017-043b) and the comments received, and *approve* or *provide guidance on* the addition of this task to the TPPT workplan;
- *note* the TPPT's intention to review the draft annex on *Process for testing new treatments for ISPM 15* (2006-010) and provide edits to be proposed for inclusion in the *IPPC procedure manual for standard setting*;
- *note* the updates of the TPPT to the draft amendments of the efficacy calculation section of the *IPPC procedure manual for standard setting*, with the intention to present this to the SC at their meeting in May 2025;
- *note* the draft TPPT workplan for 2024–2025; and
- *approve* the extension of the TPPT membership of Peter LEACH for another term.

12. Other business

12.1 Consideration of currently used treatments in trade for possible submission

[167] A member of the TPPT proposed that the TPPT consider existing treatments currently used in trade that may be beneficial for submission.

[168] This discussion referred to a paper submitted to the June 2023 TPPT meeting,[44] where the TPPT had noted that some datasets may have been created a long time ago for some existing treatments and the researchers may not be available anymore. However, the TPPT had agreed that as long as published papers, or unpublished reports with complete datasets available, formed the basis of these proposals, the submission could be progressed without the researcher and facilitated through a contact point, as noted in the June 2023 report.[45]

[169] While reviewing the table of treatments presented in the *Florida Entomologist* 2016 and noted in the June 2023 TPPT report, the TPPT identified a few for consideration for potential submission.

[170] The TPPT noted that there are no heat or cold treatments for *Anastrepha ludens* in ISPM 28, therefore this would be beneficial for consideration. They also noted that *Anastrepha ludens* is highly cold tolerant and the United States of America has a schedule on cold treatment. The TPPT agreed that Scott MYERS would review the available information regarding this treatment.

[171] In relation to *Bactrocera dorsalis*, the TPPT noted that good confirmatory tests on heat treatments have been carried out by countries in Africa for fruit fly. The TPPT agreed that Vanessa DIAS DE CASTRO would follow up on this treatment.

[172] In relation to *Bactrocera dorsalis*, the TPPT noted that Daojian YU would look into the progression of cold treatment in China and Scott MYERS would also follow up with a potential submission from the United States of America Department of Agriculture.

[173] The TPPT noted that Scott MYERS would investigate the progress of the cold treatments for *Bactrocera carambolae* and *Bactrocera correcto*. They also noted that information related to these treatments could be found in further papers developed by Australia and Mike ORMSBY would look further into these.

[174] The secretariat noted that instructional information and online options for submissions were available, and suggested that further communication about, and use of, online submission could be useful. The secretariat highlighted that, during the call for topics, countries are encouraged to use online submission

[44] 22_TPPT_2023_Jun.

[45] 2023_06 TPPT virtual meeting report: https://www.ippc.int/en/publications/92627/

forms. The TPPT discussed the transition to online submission forms. They noted that, as it had been a few years since the submission forms had last been reviewed, it would be useful to conduct a further review before transitioning to online forms.

[175] The TPPT agreed that the secretariat would consider gathering some guidance on the revision of the submission forms for the TPPT and provide a Word version of the form for reference.

[176] The TPPT:

(42) *noted* that TPPT members would follow up on possible treatments for submission as discussed at this meeting;

(43) *agreed* that the submission form for proposed treatments should be reviewed and simplified before establishing the online form process; and

(44) *requested* that the secretariat look into the process to implement the online submission process and form and advise the TPPT of the appropriate next steps.

12.2 Webinar on treatment submissions

[177] The TPPT discussed the proposed development of a webinar on treatment submissions (discussed in June 2023) for potential delivery in 2025, noting that the programme would need to be considered.

[178] Points raised during the discussion included questions about whether it would be well attended; suggestions that there be more presentations and communication on the treatment submission process; and a suggestion that a video be created. The secretariat advised of the work underway by the secretariat to develop updated, informative videos in relation to technical panels and processes. The secretariat noted that time and cost must also be considered for the webinar, as well as time zones and translations.

[179] The secretariat noted that a video and information would be readily available on the International Phytosanitary Portal (IPP) and may be easily accessible and last longer than a webinar.

[180] The TPPT also noted one further idea, which was to include the webinar in an existing forum, possibly the PRMG. The webinar could be recorded and posted on the IPP. The TPPT noted that this could be considered for upcoming PMRG meetings in 2025.

[181] The TPPT:

(45) *agreed* that Peter LEACH would initiate drafting of a presentation on treatment submissions and that TPPT members would provide him with examples of previous presentations to assist in the drafting.

12.3 TPPT updates to the Standards Committee to be posted to the restricted work area

[182] A member of the TPPT suggested that TPPT updates to the SC be posted to the restricted working area so that these updates were visible to TPPT members.

[183] The TPPT:

(46) *agreed* that a subpage be created on the restricted work area for TPPT updates to the SC.

13. Close of the meeting

[184] The secretariat thanked the TPPT for their work and asked members to provide feedback on the meeting process via an online survey.

[185] Mr Takashi KAWAI informed the TPPT and the secretariat that NPP of Japan is planning to host next TPPT meeting in June 2025 in Japan and will communicate to the secretariat.

[186] The secretariat confirmed that during the CPM-18 the NPPO of Japan verbally expressed the willingness to host the TPPT meeting.

[187] Mr Guoping ZHAN also expressed willingness to host the TPPT meeting in the Chinese Academy of Inspection and Quarantine (CAIQ).

The chairperson thanked the secretariat for hosting the meeting and the TPPT members for the good discussion.

[188] The meeting was closed.

References

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Schortemeyer, K.T., Haack, R.A., Uzunovic, A., Hoover, K., Simpson, J.A. & Grgurinovic, C.A. 2011. Appropriateness of probit-9 in the development of quarantine treatments for timber and timber commodities. *Journal of Economic Entomology*, 104(3): 717–731. https://doi.org/10.1603/EC10453

Appendix 1: Agenda

2024 meeting of the Technical Panel on Phytosanitary Treatments

	AGENDA ITEM	DOCUMENT NO.	PRESENTER
1.	**Opening of the meeting**		

	- Opening remarks by the IPPC Secretariat
	  ○ IPPC Secretariat
	  ○ Director Nacional De Proteccion Vegetal, SENASA - Argentina
			SHAMILOV
			QUIROGA

2.	**Meeting Arrangements**		
	- Election of the Chairperson - Election of the Rapporteur - Adoption of the Agenda		SHAMILOV CHAIRPERSON CHAIRPERSON
3.	**Administrative Matters**		
	- Documents List	02_TPPT_2024_Jun	SHAMILOV
	- Participants List	03_TPPT_2024_Jun	SHAMILOV
	- Local Information	04_TPPT_2024_Jun	SHAMILOV
4.	**Outcomes of SC May 2024 and updates from other governing bodies meetings and IPPC Secretariat**	20_TPPT_2024_Jun	SHAMILOV
5.	**Draft phytosanitary treatments in the work programme**	Link to LOT Link to Call for treatments page 05_ TPPT_2024_Jun	SHAMILOV
	- Overview of the standard setting procedure (presentation)	Link to restricted work area	
5.1	New submission: Vapour heat (hot steam) treatment of coniferous bark for the elimination of *Bursaphelenchus xylophilus* (2024-001) - Draft PT - Treatment submission - Treatment lead summary - References - Checklist - Supporting information	2024-001 06_TPPT_2024_Jun 17_TPPT_2024_Jun Link to references 07_TPPT_2024_Jun Link to supporting information	MYERS
5.2	Cold treatment for Zeugodacus tau on Citrus sinensis (2023-004) - Draft PT - Treatment lead summary 2024	2023-004 08_TPPT_2024_Jun	DOHINO
5.3	Methyl iodide fumigation of Carposina sasakii on Malus × domestica (2023-006) - Draft PT - Update on registration status	2023-006 24_TPPT_2024_Jun	MYERS / KAWAII

	AGENDA ITEM	DOCUMENT NO.	PRESENTER
5.4	Irradiation treatment for all stages Aspidiotus destructor (2021-029) - Draft PT - Treatment lead summary 2024	2021_029 XX_TPPT_2024_Jun	ZHAN
5.5	From first consultation: Vapour heat treatment for Planococcus lilacinus (2021-028) - Draft PT - Additional information from the submitter *(as of Feb 2024 if this is received)* - Consultation comments	2021-028 XX_TPPT_2024_Jun 09_TPPT_2024_Jun	ORMSBY
5.6	Irradiation treatment for all stages of the family Pseudococcidae (generic) (2017-012) - Draft PT - Treatment lead summary 2024	2017-012 10_TPPT_2024_Jun Link to TPPT July 2021 report	YU
5.7	Irradiation treatment for Epiphyas postvittana (2017-018) - Draft PT - Treatment lead summary 2024	2017-018 11_TPPT_2024_Jun Link to TPPT July 2021 report	YU
5.8	Irradiation treatment for Frankliniella occidentalis on all fresh commodities (2017-019) - Draft PT - Treatment lead summary 2024	2017-019 12_TPPT_2024_Jun Link to TPPT July 2021 report	DOHINO
5.9	Sulfuryl fluoride fumigation treatment for Chlorophorus annularis on bamboo articles (2017-028) - Draft PT - Treatment lead summary	2017-028 18_TPPT_2024_Jun Link to TPPT July 2021 report	WILLINK
5.10	Generic irradiation treatment against all insects except Lepidoptera larvae and pupae (2017-030) - Treatment lead summary	XX_TPPT_2024_Jun Link to TPPT Sept 2022 report	MYERS
5.11	Phytosanitary irradiation treatment of fresh commodities against Liriomyza sativa, L. trifolii and L. huidobrensis (2018-001) - Treatment Lead summary	13_TPPT_2024_Jun Link to Checklist from 2018 TPPT March	DIAS DE CASTRO
5.12	Cold treatment of Drosophila suzukii on Vitis vinifera (2021-027) - Draft PT - Treatment lead summary	2021-027 23_TPPT_2024_Jun Link to TPPT Sept 2022 report	WILLINK
5.13	Heat treatment of wood using dielectric heating (2007-114)		ORMSBY
6.	**Draft ISPMs**		
6.1	Requirements for the use of chemical treatments as a phytosanitary measure (2014-003)	Link to ISPM 18	OPATOWSKI

	AGENDA ITEM	DOCUMENT NO.	PRESENTER
		Link to ISPM 42 Link to ISPM 43 Link to Annotated template for draft ISPMs Link to IPPC style guide	
7.	**Publications as a basis for ISPM 15 treatment schedules**		
7.1	Assess whether the model described in Ormsby (2022), and other relevant publications provide a sufficient basis for the development of treatment schedules for ISPM 15.	2006-010 14_TPPT_2024_Jun 15_TPPT_2024_Jun 16_TPPT_2024_Jun	SHAMILOV / ORMSBY
7.2	Developing the criteria around the ISPM 15 treatment testing process	2006-10 22_ TPPT_2024_Jun	OPATOWSKI / SHAMILOV
8.	**Efficacy calculation**		
8.1	Efficacy calculation method – Update on draft amendment to PMRG guidelines		LEACH
8.2	Consolidated processes to calculate efficacy	19_TPPT_2024_Jun	ORMSBY
9.	**Liaison**		
9.1	Phytosanitary Measures Research Group (PMRG) - Update from the Chair	Link to PMRG page	LEACH
9.2	Ozone Secretariat (Vienna Convention and Montreal Protocol / United Nations Environment Programme (UNEP)) - Update from the Methyl Bromide Technical Options Committee	Link to Ozone Secretariat website Link to the Ozone Secretariat update to CPM 18	SHAMILOV
9.3	International Forestry Quarantine Research Group (IFQRG) - Update from the Chair	Link to IFQRG page Link to IFQRG update to the CPM 18	ORMSBY
10.	**Overview of the TPPT work plan**	Link to List of topics for IPPC standards	
10.1	Development of 2024-2025 work plan	21_TPPT_2024_Jun	SHAMILOV / ALL
10.2	Extension of the membership of some TPPT members		SHAMILOV / ALL
11.	**Recommendations to the SC**		CHAIRPERSON
12.	**Other business**		CHAIRPERSON
13.	**Close of the meeting**		CHAIRPERSON
	- Evaluation of the meeting process - Close		SHAMILOV / CHAIRPERSON

Appendix 2: Documents list

DOCUMENT NO.	AGENDA ITEM	DOCUMENT TITLE	DATE POSTED / DISTRIBUTED
Draft PTs			
2017-012	5.6	Draft PT: Irradiation treatment against all stages of the family *Pseudococcidae* (Generic)	
2017-018	5.7	Draft PT: Irradiation treatment for *Epiphyas postvittana*	
2017-019	5.8	Draft PT: Irradiation treatment for Frankliniella occidentalis	
2017-028	5.9	Draft PT: Sulfuryl fluoride fumigation treatment for Chlorophorus annularis on bamboo articles	
2021-027	5.12	Draft PT: Cold treatment for drosophila suzukii on vitis vinifera	
2021-028	5.5	Draft PT: Vapour heat treatment for Planococcus lilacinus	
2021-029	5.4	Draft PT: Irradiation treatment for Aspidiotus destructor	
2023-004	5.2	Draft PT: Cold treatment for Zeugodacus tau on Citrus sinensis	
2023-006	5.3	Draft PT: Methyl iodide fumigation treatment for Carposina sakaskii on Malus x domestica	
2024-001	5.1	Draft PT: Vapor heat treatment for bursaphelenchus xylophilus	
Draft ISPMs			
2006-010	7.1 & 7.2	ISPM 15: 2009 draft Annex: Process for testing new treatments for ISPM 15	
Other Documents			
01_TPPT_2024_Jun	02	Provisional agenda	
02_TPPT_2024_Jun	03	Document List	
03_TPPT_2024_Jun	03	Participants list	
04_TPPT_2024_Jun	03	Local information	
05_TPPT_2024_Jun	05	Draft phytosanitary treatments in the work programme	
06_TPPT_2024_Jun	5.1	Treatment submission: Vapour heat (hot steam) treatment of coniferous bark for the elimination of Bursaphelenchus xylophilus (pine wood nematode – PWN)	
07_TPPT_2024_Jun	5.1	Checklist: Vapor heat treatment for Bursaphelenchus xylophilus (2024-001)	
08_TPPT_2024_Jun	5.2	Treatment lead summary: Cold treatment for Zeugodacus tau on Citrus sinensis (2023-004)	
09_TPPT_2024_Jun	5.5	Compiled comments for 2023 First Consultation: 2021-028_Draft_PT_VHTPlanococcus - Steward's comment	
10_TPPT_2024_Jun	5.6	Treatment Lead Summary: Irradiation treatment for all stages of the family Pseudococcidae (generic) (2017-012)	
11_TPPT_2024_Jun	5.7	Treatment Lead Summary: Irradiation treatment for light brown apple moth Epiphyas postyittana on all fresh commodities (2017-018)	
12_TPPT_2024_Jun	5.8	Treatment Lead Summary: Irradiation treatment for Frankliniella occidentalis	

DOCUMENT NO.	AGENDA ITEM	DOCUMENT TITLE	DATE POSTED / DISTRIBUTED
13_TPPT_2024_Jun	5.11	Treatment Lead Summary: Status of the phytosanitary irradiation treatment of fresh commodities against Liriomyza sativa, L. trifolii, and L. huidobransis (2018-001)	
14_TPPT_2024_Jun	7.1	Haack etal 2011 Alternatives to Probit 9	
15_TPPT_2024_Jun	7.1	Ormsby 2022 Elucidating the efficacy of phytosanitary measures for invasive alien species moving in wood packaging material	
16_TPPT_2024_Jun	7.1	Appropriateness of Probit-9 in the Development of Quarantine Treatments for Timber and Timber Commodities	
17_TPPT_2024_Jun	5.1	Treatment Lead Summary: Vapor heat treatment for Bursaphelenchus xylophilus (2024-001)	
18_TPPT_2024_Jun	5.9	Treatment Lead Summary: Sulfuryl fluoride fumigation treatment for Chlorophorus annularis on bamboo articles (2017-028)	
19_TPPT_2024_Jun	8.2	Discussion document on determining the number of treated pests	
20_TPPT_2024_Jun	04	Outcomes of SC May 2024 and updates from other governing bodies	
21_TPPT_2024_Jun	10.1	TPPT Work Plan 2024-2025	
22_TPPT_2024_Jun	7.2	ISPM 15 Treatment manuals	
23_TPPT_2024_Jun	5.12	Treatment Lead Summary: Cold treatment of 'Red Globe' grape for Drosophila suzukii (2021-027)	
24_TPPT_2024_Jun	5.3	Registration update of Methyl Iodide in Japan	
25_TPPT_2024_Jun	8.1	Efficacy calculation method – Update on draft amendment to PMRG guidelines	

IPP LINKS:	Agenda item
Link to LOT	
Link to Call for treatments page	
Link to restricted work area – TPPT 2024 June Argentina	
TPPT meeting reports	
Link to references (2024-001)	5.1
Link to supporting information (2024-001)	5.1
Link to TPPT July 2021 report	5.6 & 5.7 & 5.8 & 5.9
Link to TPPT Sept 2022 report	5.10 & 5.12
Link to Checklist from 2018 TPPT March	5.11
Link to ISPM 18	7.1
Link to ISPM 42	7.1
Link to ISPM 43	7.1

IPP LINKS:	Agenda item
Link to Annotated template for draft ISPMs	7.1
Link to IPPC style guide	7.1
Link to PMRG page	9.1
Link to Ozone Secretariat website	9.2
Link to the Ozone Secretariat update to CPM 18	9.2
Link to IFQRG page	9.3
Link to IFQRG update to the CPM 18	9.3
Link to List of topics for IPPC standards	10

Appendix 3: Participants list

	Participant role & Expertise	Name, mailing, address, telephone	Email address	Term begins	Term ends
	Steward	**Mr David OPATOWSKI** Head, Plant Biosecurity, Plant Protection and Inspection Services (PPIS), P.O.Box 78,Bet Dagan, 50250 **ISRAEL** Tel: 972-(0)3-9681518 Mob.: 972-(0)506-241885	dopatowski@yahoo.com davido@moag.gov.il		
	Member Chemical Fumigation Temperature Modified atmosphere	**Mr Michael ORMSBY** Principle Advisor – Office of the Chief Biosecurity Officer Ministry for Primary Industries P.O Box 2526, Wellington, 6011 **NEW ZEALAND** Tel: +64 4 894 0486	michael.ormsby@mpi.govt.nz	October 2020 (3rd term)	2025
	Member Fumigation Temperature	**Mr Eduardo WILLINK** Estación Experimental Agroindustrial Obispo Colombres, P.O.Box 9, Las Talitas (4101) Tucumán **ARGENTINA** Tel: +54 381-4521010 +54-381 154692512	ewillink@arnet.com.ar; eduwillink@gmail.com	October 2020 (3rd term)	2025
	Member Fumigation Temperature	**Mr Scott MYERS** USDA APHIS 1398 W Truck Rd., Buzzards Bay, MA, **USA** Tel: 508-563-0959	scott.w.myers@aphis.usda.gov	May 2023 (3rd term)	2028
	Member Irradiation Fumigation Temperature	**Mr Daojian YU** Shenzhen Customs District, P. R. China, GACC 1011, Fuqiang Road, Shenzhen, 518045,Guangdong, **CHINA** Tel: +86-755-82117990	yudj_2002@aliyun.com	May 2019 (2nd term)	2024
	Member **Irradiation** **Temperature**	**Mr Toshiyuki DOHINO** Disinfestation Technology Section, Research Center Yokohama Plant Protection Station Ministry of Agriculture, Forestry and Fisheries (MAFF) 1-16-10, Shin-yamashita, Naka-ku, Yokohama 231-0801 **JAPAN** Tel: +81 45 622 8893 Fax: +81 45 621 7560	toshiyuki_dohino100@maff.go.jp	October 2020 (2nd term)	2025

	Participant role & Expertise	Name, mailing, address, telephone	Email address	Term begins	Term ends
	Member **Irradiation** **Temperature**	**Ms Vanessa Simoes Dias de Castro** Entomologist Insect Pest Control Section Joint FAO/IAEA Division of Nuclear Techniques in Food and Agriculture International Atomic Energy Agency | Vienna International Centre, PO Box 100, 1400 Vienna **IAEA** Telephone number: +43 (1) 2600-27418 Fax: +43 (1) 26007 27418	V.Dias-De-Castro@iaea.org	May 2023 (1st term)	2028
	Member **Irradiation** **Temperature** **Chemical** **Fumigation**	**Mr Peter Llewellyn LEACH** Senior Principle Entomologist and Market Access Focus Team Leader, Agri-Science Queensland, Department of Agriculture Fisheries (DAF) 21 Redden St. Portsmith, Queensland 4870 **AUSTRALIA** Tel: +61 408077752	peter.leach@daf.qld.gov.au	January 2019 (1st term)	2024
	Member **Temperature**	**Ms Meghan NOSEWORTHY** Research Manager – Entomology and Phytosanitary Research Canada/ Natural Resources Canada – Canadian Forest Service Address: 506 West Burnside Road, Victoria, BC, V8Z 1M5 **CANADA** Telephone number: 250 298 2354	Meghan.noseworthy@nrcan-rncan.gc.ca	April 2022 (1st term)	2027
	Member **Irradiation, Fumigation, Temperature, Modified Atmosphere**	**Mr Guoping ZHAN** Professor Chinese Academy of Inspection and Quarantine (CAIQ), P. R. China Address: No. A3, Gaobeidian Bei Lu, Chaoyang District, Beijing, 100123, **CHINA** Telephone number: +86 136 1119 2153	zhangp@caiq.org.cn zhgp136@126.com	April 2022 (1st term)	2027

	Participant role & Expertise	Name, mailing, address, telephone	Email address	Term begins	Term ends
	Member **Fumigation** **Temperature**	**Mr Takashi KAWAI** Senior researcher, Disinfestation Technology Section, Research Division, Yokohama Plant Protection Station, MAFF Japan / Ministry of Agriculture, Forestry and Fisheries (MAFF) Address: 1-16-10, Shin-yamashita, Naka-ku, Yokohama 231-0801, **JAPAN** Telephone number:(+81) 45 622 8893	takashi_kawai660@maff.go.jp	April 2022 (1st term)	2027
	Host	**Mr Ezequiel FERRO** International Phytosanitary Affaires Leader Dirección Nacional de Protección Vegetal - **SENASA** Tel: +5411-4121500 (Ext 6657)	eferro@senasa.gob.ar		
	Host	**Mr Diego QUIROGA** Director Nacional de Protección Vegetal – SENASA Tel: (+5411) 4121-5176 / 5495	dquiroga@senasa.gov.ar		
	Host	**Mr Matías GONZALEZ BUTTERA** Dirección Nacional de Protección Vegetal - SENASA Venezuela 162 (C1063), City of Buenos Aires ARGENTINA	mbuttera@senasa.gob.ar		
	IPPC Secretariat Lead	**Mr Artur Shamilov** International Plant Protection Convention Food and Agriculture Organization of the United Nations Viale delle Terme di Caracalla 00153 Rome ITALY Tel: +39 06 570 52454	Artur.Shamilov@fao.org		
	IPPC Secretariat Support	**Ms Colleen STIRLING** International Plant Protection Convention Food and Agriculture Organization of the United Nations Viale delle Terme di Caracalla 00153 Rome ITALY Tel: +39 06 570 52454	Colleen.Stirling@fao.org		

Appendix 4: TPPT Work Plan 2024-2025

TABLE 1 – LOT (PTs)

Subjects for TPPT (sorted by priority, status, then topic number)							
Topic No.	**Current title**	**Priority**	**Strategic objective**	**Added to the list**	**Treatment Lead (Country, Date assigned)**	**Assistant Lead (Country, Date assigned)**	**Status**
2007-114	Heat treatment of wood using dielectric heating	1	B C	2011-11 SC	Michael ORMSBY (NZ, 2006-12)		00. Pending
2017-012	Irradiation treatment for all stages of the family Pseudococcidae (generic)	1	A C	2018-05 SC	Daojian YU (CN, 2017-07)		04. Draft ISPM under development
2017-018	Irradiation treatment for Epiphyas postvittana	2	A C	2018-05 SC	Daojian YU (CN, 2017-10)		04. Draft ISPM under development
2017-019	Irradiation treatment for Frankliniella occidentalis on all fresh commodities	3	A C	2018-05 SC	Toshiyuki DOHINO (JP, 2018-03)		04. Draft ISPM under development
2017-028	Sulfuryl fluoride fumigation treatment for Chlorophorus annularis on bamboo articles	2	B C	2018-05 SC	Eduardo WILLINK (AR, 2017-07)		04. Draft ISPM under development
2017-030	Generic irradiation treatment against all insects except Lepidoptera larvae and pupae	2	A C	2018-05 SC	Vanessa (IAEA, 2024-06)		04. Draft ISPM under development
2018-001	Phytosanitary irradiation treatment of fresh commodities against Liriomyza sativa, L. trifolii and L. huidobrensis	2	A C	2018-05 SC	Vanessa (IAEA, 2024-06)		04. Draft ISPM under development
2021-027	Cold treatment of Drosophila suzukii on Vitis vinifera	1	A C	2022-05 SC	Eduardo WILLINK (AR, 2022-05)		04. Draft ISPM under development
2021-028	Vapour heat treatment for Planococcus lilacinus	1	A C	2022-05 SC	Michael ORMSBY (NZ, 2021-11)		04. Draft ISPM under development
2021-029	Irradiation treatment for all stages Aspidiotis destructor	1	A C	2022-05 SC	Guoping ZHAN (CN, 2022-09)		04. Draft ISPM under development
2023-004	Cold treatment for Zeugodacus tau on Citrus sinensis	1	A C	2023 -11 SC	Toshiyuki DOHINO (JP, 2023-08)		04. Draft ISPM under development
2023-006	Methyl iodide fumigation of Carposina sasakii on Malus × domestica	3	A C	2023 -11 SC	Dr. Scott W. MYERS (US, 2023-08)		04. Draft ISPM under development
2023-032	Combination of Modified Atmosphere and Irradiation Treatment for Trogoderma granarium	1	A C	2023 -11 SC	Dr. Scott W. MYERS (US, 2023-08)		06. Draft ISPM to first consultation
2023-033	Irradiation treatment for Pseudococcus baliteus	1	A C	2023 -11 SC	Mr. Michael ORMSBY (NZ, 2023-08)		06. Draft ISPM to first consultation

Subjects for TPPT (sorted by priority, status, then topic number)							
Topic No.	**Current title**	**Priority**	**Strategic objective**	**Added to the list**	**Treatment Lead (Country, Date assigned)**	**Assistant Lead (Country, Date assigned)**	**Status**
2023-034	Irradiation treatment for Paracoccus marginatus	1	A C	2023 -11 SC	Meghan NOSEWORTHY (CA, 2023-08)		06. Draft ISPM to first consultation
2023-035	Irradiation treatment for Planococcus lilacinus	1	A C	2023 -11 SC	Takashi KAWAII (JE, 2023-08)		06. Draft ISPM to first consultation
2024-001		3	A C		Scott W. MYERS (US, 2024-06)		

TABLE 2 – LOT (ISPMs)

Topics for EWGs, TPPT and TPCS (sorted by priority, drafting body, then status)								
Topic No.	**Current title**	**Priority**	**Strategic objective**	**Drafting body**	**Added to the list**	**Lead Steward / TP Lead (Country, Date assigned)**	**Assistant Stewards (Country, Date assigned)**	**Spec No**	**Status**
2014-003	Requirements for the use of chemical treatments as a phytosanitary measure	3	A B C	TPPT	CPM 09 (2014)	Mr. David OPATOWSKI (IL, 2017-11)	Mr. Michael ORMSBY (NZ, 2016-11)	62	04. Draft ISPM under development

TABLE 3 – REGULAR & ONE-OFF TASKS

Regular & One-off tasks	Detailed task	Responsible	Deadline	Comments
Evaluation of PT submissions				Nominated lead evaluates and provides recommendation to TPPT on how to proceed with the submission
	2024-001 - Vapour heat (hot steam) treatment of coniferous bark for the elimination of Bursaphelenchus xylophilus	Scott MYERS	June 2024	

Update of PMRG guideline	Draft amendments to the PMRG guidelines to include newly agreed formula to calculate efficacy.	Peter LEACH		
ISPM 15 related topics	As per SC May 2024 draft the criteria around the ISPM 15 treatment testing process, to be presented to the SC for approval to include in the IPPC procedure manual for standard setting.	Mike	Sept	One focused virtual meeting (3 days) will be required Sept-Oct 2024
Revision of the term 'treatment schedule'	SC May 2024 requested that the TPPT consider the need for revision of the term "*treatment schedule*".	All	May 2025	To report back to SC
ISPM on chemical treatments	Develop first draft according to annotated template and TPPT procedures.	Mike/David	May 2025	will be duscussed at next face-to-fa e meeting
Facilitation of new submissions		All		