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REPORT

Technical Panel on Diagnostic Protocols (TPDP)

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IPPC Secretariat

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1. Opening of the Meeting

1.1 Welcome

- [1] The Standard Setting Officer, Adriana G. MOREIRA, from the International Plant Protection Convention (IPPC) Secretariat (hereafter “the secretariat”), welcomed the participants of the Technical Panel on Diagnostic Protocols (TPDP) meeting and thanked the European Plant Protection Organization (EPPO) for hosting the meeting in their headquarters in Paris, France.
- [2] The secretariat recalled that since the creation of the TPDP in 2004, a total of 31 Diagnostic Protocols (DPs) and 10 Commission on Phytosanitary Measures (CPM) recommendations (among them, the importance of pest diagnosis and high throughput sequencing (HTS) technologies) have been adopted.¹ The Standard Setting Officer also pointed out that the TPDP is in a “new phase” of its work, in which the revision of adopted DPs may become more frequent. She also acknowledged the importance of face-to-face meetings, as this was the first on this modality after the start of the COVID-19 pandemic and with new members joining the Panel.
- [3] Françoise PETTER, EPPO Assistant Director, welcomed all participants and wished them a fruitful meeting.

2. Meeting Arrangements

2.1 Selection of the chairperson

- [4] The TPDP selected Ms Géraldine ANTHOINE (France) as chairperson.

2.2 Election of the rapporteur

- [5] The TPDP elected Ms Juliet GOLDSMITH (CAHFSA) as rapporteur.²

2.3 Adoption of the agenda

- [6] The TPDP adopted the agenda (Appendix 1).

3. Administrative matters

- [7] The documents list (Appendix 2) and the participants' list (Appendix 3) had been made available to the TPDP before the meeting.

3.1 Documents list

- [8] The IPPC Secretariat introduced the documents list.

3.2 Participants list

- [9] The following TPDP members were absent: Robert TAYLOR, Colette JACONO, Liping YIN and the TPDP Steward, Álvaro SEPÚLVEDA LUQUE..
- [10] The host presented the local information.

¹ CPM Recommendations: www.ippc.int/en/core-activities/governance/cpm/cpm-recommendations-1/cpm-recommendations/

² Caribbean Agricultural Health and Food Agency

3.3 Review of standard setting process

- [11] The IPPC Secretariat presented the standard setting process,³ underlying the specific process to develop the diagnostic protocols (DPs), with respective deadlines for each stage.⁴ The IPPC Secretariat recalled that DPs are developed as annexes of ISPM 27 under the supervision of the Standard Committee (SC).
- [12] One participant asked about the expert consultation for draft diagnostic protocols (DPs)⁵, mainly regarding the communication not only to the national plant protection organizations (NPPOs) and/or regional plant protection organizations (RPPOs), but also to the wider experts audience. The secretariat clarified that the expert consultation is an important step in the development of DPs and that the authors expect to have these input from the experts at an early stage of development. The TPDP agreed and asked the secretariat to submit a recommendation to the Standards Committee (SC) to review the Specification TP 01 to make sure that all these steps are detailed and clear.⁶
- [13] One TPDP member asked about the types of comments received through the expert consultation and the IPPC consultation period, and how to address all comments. Another member asked whether the DPs could have two periods of IPPC consultation. The secretariat clarified on the duration of each consultation (expert and IPPC), the way to address the comments (also considering the whole DP or a focused revision) and the possibility of having two periods of IPPC consultation, which should be recommended to the SC and informed to the CPM.
- [14] One TPDP member questioned whether there is a timeframe for a DP revision. The secretariat explained that the requirement for a DP revision could be identified by the TPDP or by an external information sent to the secretariat (e.g. the publication of a new methodology for pest diagnosis). The secretariat also mentioned the fast-track process in case of minor changes such as the name of the pest or the contact points. These kind of adjustments to the DP could be done without the necessity to be submitted to a new consultation period, but through a notification to the SC. The EPPO representative informed that EPPO has a checklist form for this kind of focused revision, which could be shared with the IPPC secretariat.
- [15] The TPDP :
- (1) *noted* the presentation on the standard setting process, particularly the details on the development of DPs.
 - (2) *requested* the IPPC secretariat to submit a recommendation to the Standards Committee (SC) to review the Specification TP 01 to include the step on the “DP expert consultation”.
 - (3) *suggested* to develop a calendar / work program for the review of adopted DPs (frequency of review every 5 years).

³ Presentation SS process: <https://ippc.int/en/publications/90063/>

⁴ IPPC Procedure Manual for Standard Setting (2021-2022): www.ippc.int/en/publications/85024/

⁵ IPPC expert consultation on draft DPs: <https://www.ippc.int/en/core-activities/expert-consultation-draft-diagnostic-protocols/>

⁶ Specification TP 1 – TPDP: <https://www.ippc.int/en/publications/1297/>

4. Recommendation to the SC: Review of draft diagnostic protocols (DPs) from IPPC consultation period

4.1. *Mononychelus tanajoa* (2018-006)

- [16] The discipline lead, Juliet GOLDSMITH, presented the draft DP and supporting documentation, which received 124 comments from the IPPC consultation (1 July to 30 September 2022). Among these comments, 24 were considered technical, and eight were substantive.
- [17] In one of the comments, there was a request to include another section in the DP on molecular identification of closely related species, as morphological methods may not be sufficient. The discipline lead clarified that the draft DP contains a molecular method to distinguish closely related species and key that separates the species morphologically.
- [18] One comment pointed out that only one sequence of the COI fragment is available in GenBank for *M. tanajoa* and that one sequence is insufficient for identification. The discipline lead agreed with the importance of having more sequences, but the authors did not respond yet. The chairperson commented that the methods have to be reliable and accurate, and in this draft DP, they are.
- [19] The TPDP discussed including names that are not true synonyms but are instead alternative generic combinations. The Panel decided to include "and other names" to the draft DP when synonyms are presented.
- [20] **Preparation of specimens for microscopic examination.** Comments on the concentration of lactic acid and the temperature for clearing specimens were made. The TPDP suggested that the authors consider separating the steps, checking their sequence, as well as including a step on "maceration". The TPDP also suggested to the authors checking the temperatures for clearing and mounting the slides. There was also a comment suggesting including nail polish in the list of sealants, which will be incorporated.
- [21] **Dichotomous key to genera of Tetranychidae on *Manihot* spp.** The TPDP suggested to the discipline lead checking with the authors the possibility to get a figure to show "empodial claw shorter than proximoventral hairs".
- [22] The TPDP had a discussion about molecular methods included in the draft DPs with only one reference available. They agreed that one reference is not considered sufficient for identification and that morphology is used for identification and molecular methods are used only for supporting confirmation. They also agreed to adjust all paragraphs that have mentions to "molecular methods" clarifying this issue.
- [23] **Conventional PCR and sequencing.** The TPDP recommended the discipline lead to check the comment from New Zealand regarding the information about the primer presented by Folmer *et al.* (1994) and the possibility to recommend the primer presented by Li *et al.* (2015) directly for the cases that the first one did not work.
- [24] **Table 1. Expected amplicons.** The TPDP asked the authors to confirm the size of the amplicons, checking Ovale *et al.* (2020), which gives a different size for bp, but it could have been "trimmed" in size. Also, to clarify the expected size for the gel.
- [25] Some paragraphs were re-phrased or the wording was adjusted to address the comments received. All comments received were addressed by the discipline lead and comments were provided to justify the ones that were not incorporated.
- [26] **Figures.** Some comments on the format of the figures were received (e.g. to label some specific character, to check the value expressed or to show a figure that express better a particular character). The suggestions from the TPDP are presented in the text. Each comment will be addressed accordingly.

[27] Once the entire draft DP was reviewed by the TPDP, the Secretariat explained the future scenarios and respective deadlines.

[28] The TPDP:

- (4) *thanked* the drafting group of this draft DP - *Mononychelus tanajoa* (2018-006);
- (5) *agreed* to recommend this draft DP to the SC for adoption in 2023;
- (6) *asked* the IPPC secretariat to open a TPDP e-forum or to present the revised draft DP in a virtual meeting.

4.2 Genus *Ceratitis* (2016-001)

[29] The lead author, Norman BARR, presented the draft DP that was submitted to the IPPC consultation (1 July to 30 September 2022) the compiled comments received,⁷ as well as the responses provided to them.⁸ The TPDP then reviewed the draft DP and discussed the issues raised by the lead author at the relevant points in the draft.

[30] **Terminology.** One general comment was received from an RPPO regarding the use of the terms “method” and “test”. The TPDP discussed the issue, and a document from the 2016 TPDP meeting that provides/includes explanations about the terms “essay”, “test” and “method” was retrieved. The TPDP agreed that the term “test” should not be used and the Instructions to Authors should be revised.⁹

[31] Another comment was questioning the use of the terms “pest” and “species”. The TPDP discussed this matter and agreed that the draft DP should be revised and the term “pest” be replaced by “species” where appropriate.

[32] The TPDP also discussed the term “plants” and agreed that it includes fruits, vegetables and nuts.

[33] One contracting party (CP) suggested adding “yeast” as a source of protein, which was agreed to by the TPDP. In the same paragraph, the EPPO representative suggested removing the morphological methods from the sentence once no guidance is given in section 4.3.1. on sample preservation, preparation, and DNA extraction for molecular tests. The TPDP agreed with the suggestion, which is also in line with another comment from a CP.

[34] **Characters to identify adults to the genus *Ceratitis*.** Comments on format were addressed directly in the text. As an example, a comment on the way the information was structured with respect to the “combination of characters to differentiate representatives of the genus *Ceratitis* from other dacine genera with similar appearance” was addressed through the use of bullet points.

[35] Comments about alphabetical order were clarified by the lead author saying that either one is accepted, but he will consult the other authors to decide how to proceed.

[36] **Unpublished information.** Some comments were received on the use of unpublished information. The TPDP discussed the issue, as the current recommendation to DP authors is to avoid oral information. They

⁷ 07_TPDP_2022_Oct_Nov

⁸ 08_TPDP_2022_Oct_Nov

⁹ 2018-2019 Instructions to authors diagnostic protocols for regulated pests:
www.ippc.int/static/media/files/publication/en/2018/04/TPDP_2018-2019_InstructionsToAuthors_2018-04-26.pdf

agreed to suggest to the secretariat to include the option of having “personal communication” in the Instructions to Authors.⁷

- [37] **Preparation of third-instars larvae for identification.** One comment from a RPPO relating to the blackening of larvae was discussed by the TPDP. The RPPO noted that Larvae of *Ceratitis* that are collected from fruits in cold storage become black when placed in hot water. Therefore, they must be warmed again (as a pre-treatment or pre-incubation) before analysing them to avoid this blackening. The discipline lead explained that warming the larvae is only necessary if the intention is to rear them and that the section describes the process if the intention is to kill the larva. The lead author will review the wording to ensure the procedure is clear.
- [38] One comment from an RPPO suggested including a method of studying the oral ridges was agreed by the TPDP, which asked EPPO to provide an image.
- [39] The EPPO representative commented that the secondary tooth is also present in *B. trilineata*. The lead author consider that it would be appropriate to include this information in the text and asked EPPO to provide a citation, images or specimens. The TPDP agreed.
- [40] One comment was about a possible contradiction between paragraphs regarding the requirement of molecular tests for identification. The TPDP had a discussion about this issue. The lead author explained that when the identification is done for the first time, to confirm a new record or pest presence, it demands a molecular (DNA) analysis. The TPDP agreed that the information “for a first record” should be reinforced in the paragraphs where it is missing.
- [41] The TPDP discussed another comment regarding the maintenance of scanning electron microscope (SEM) in the protocol, since it is a technology that most laboratories are not able to access. The EPPO representative commented that for larvae identification, SEM is required. If the use of SEM is not possible, the identification can be done by rearing larvae to adults or by molecular methods.
- [42] **Table 3.** Two comments were received about the value ranges for tubules of *Ceratitis capitata*. The TPDP discussed and suggested that the information should be confirmed by the DP drafting group, which could consider adding a note or personal communication saying that “some variability may be found”.
- [43] **Figures.** The TPDP suggested to the authors keeping both Figures 5 and 6 as it helps the diagnosis.
- [44] The TPDP:
- (7) *thanked* the drafting group of this draft DP - Genus *Ceratitis* (2016-001);
 - (8) *agreed* to recommend this draft DP to the SC for adoption in 2023.

5. Recommendation to the SC: Review of draft DPs from IPPC DP Expert Consultation¹⁰

5.1 Revision of DP 27 – *Ips* spp. (2021-004)

- [45] The discipline lead, Norman BARR, introduced the document and the rationale for the revision. He explained that the DP authors requested the revision as new species were found.

¹⁰ ¹⁰ Current expert consultation on draft DPs (ECDP): www.ippc.int/en/core-activities/expert-consultation-draft-diagnostic-protocols/

- [46] The draft revision was submitted to expert consultation (8 August – 30 September 2022), but the comments received were not related to the parts of the protocol that are under revision.^{11 12}
- [47] The TPDP discussed possible inconsistencies in the text on the flight capacity, once the values presented are considered as long distance and the text suggests that the species are capable of flying short distances. It was agreed that the wording would be adjusted and a reference added.
- [48] **Detection.** The TPDP suggested that the DP drafting group check if “branches” and “limbs” are interchangeable.
- [49] **Symptoms of infestation in living trees.** With regard to the size of the holes on the bark made by *Ips*, the TPDP suggested to the DP drafting group to consider adding information on the maximum range.
- [50] **Collecting specimens from plants and wood products.** When describing the bark removal from affected trees or wood products, the TPDP suggested deleting the wording “using a sharp, strong knife or a small axe” as this information is not relevant.
- [51] **Identification.** The TPDP suggested to clarify the term “recognised” as it is not common word for DPs.
- [52] Other adjustments were done directly to the text during the meeting. A cross-checking of terms and references will also be properly done.
- [53] The TPDP:
- (9) *thanked* the drafting team of this draft DP - Revision of DP 27 – *Ips* spp. (2021-004);
 - (10) *noted* that the expert consultation is useful and important step to ensure the quality of the IPPC DPs;
 - (11) *agreed* to recommend this draft DP to the SC for IPPC consultation in 2023.

5.2 Revision of DP 5 - *Phyllosticta citricarpa* (McAlpine) Aa (2019-011)

- [54] The DP discipline lead, Yázmin RIVERA, introduced the draft revision of this DP, which was submitted to expert consultation (8 August – 30 September 2022). The summary of comments received during expert consultation were also presented¹³. The TPDP suggested to the discipline lead adding the rationale for this revision.
- [55] **Pest information.** Regarding a comment from a TPDP member on Citrus hybrids, the TPDP suggested to the discipline lead checking the information with the DP drafting group and other adopted DPs for Citrus pests.
- [56] The TPDP suggested that the DP drafting group check references missing in the references list and whether it is relevant to have all personal communications in the text.
- [57] **Identification.** Recent studies suggest that there may be no difference between *P. citricarpa* and *P. paracitricarpa*. Based on this, the TPDP is recommending that the revision of this DP, within the proposed

¹¹ Current expert consultation on draft DPs (ECDP): www.ippc.int/en/core-activities/expert-consultation-draft-diagnostic-protocols/

¹² 05_TPDP_2022_Oct_Nov

scope, is put on hold (“pending status”) until the publication of these studies, which may come within 12-24 months. A paper will be prepared and presented to the SC via e-decision or to the SC May meeting.

[58] **Table 1.** The TPDP suggested the wording “the length of the conidial appendage” instead of “Apical appendage length”, to be consistent with the text description.

[59] **Method B: Molecular assays.** The TPDP recommended the DP drafting group to check if there is a LAMP test with the same sequences / primers for *P. citricarpa* and *P. paracitricarpa*.

[60] **Identification of *P. citricarpa* by conventional PCR.** One comment to include LAMP in this subsection was explained by the discipline lead. She said that LAMP is not useful for *P. paracitricarpa*; once the revision focused on this species, it was not incorporated. However, the draft document is going to be reviewed by the drafting group.

[61] **Nucleic acid extraction and purification.** The TPDP recommended the DP drafting group to include the relevant kit for the KingFisher isolation robot.

[62] **Sequencing of amplicons.** The TPDP suggested that the DP drafting group consider including information for the interpretation of results from the internal transcribed spacer (ITS) sequencing.

[63] **Polymerase chain reaction.** Regarding the comment considering 40 as an arbitrary number for cut off value, not validated appropriately, the TPDP asked the authors to consider adjusting the wording for the interpretation of results.

[64] The TPDP asked the authors to consider deleting the sentence on the requirement of verification of the cut-off value when implementing the test for the first time whether no Ct cut-off value is provided. The TPDP discussed the issue and recommended to check whether a cut-off value is needed in every instance or up to each laboratory.

[65] **Acknowledgements.** The TPDP suggested to divide this section in two, one acknowledging the drafting group of the DP and the other, the one that drafted the revision of the DP. This suggestion is valid for the other DP revisions.

[66] A global check for section numbers, citations and references will be requested to the drafting group.

[67] The TPDP:

- (12) *thanked* the drafting team of this draft DP - Revision of DP 5 - *Phyllosticta citricarpa* (McAlpine) Aa (2019-011);
- (13) *noted* that the expert consultation is useful and an important step to ensure the quality of the IPPC DPs;
- (14) *agreed* to recommend this draft DP to the SC to put its revision on hold (“pending status”).
- (15) *asked* the discipline lead to draft a paper with the rationale and justification to recommend the revision of this draft DP on “pending status” and present it to the TPDP in an e-forum or TPDP virtual meeting.

6. TPDP work programme: Review of draft DPs

6.1 Revision of DP 25 *Xylella fastidiosa* (2021-003)

[68] The discipline lead, Robert TAYLOR, introduced the document and the rationale for the revision of DP 25. According to him, the key changes concern: taxonomy and the revision of subspecies, the sampling section, the addition of new tests for subspecies identification, of a section dedicated for LAMP test, new DNA extraction methods and a nested MLST PCR test.

- [69] **Pest information.** The discipline lead commented that of the three subspecies recognised, only two have valid names (*fastidiosa* and *multiplex*). A reference for *X. fastidiosa* subsp. *multiplex* will be searched to be included in the text, for consistency.
- [70] **Common names.** The authors agreed to delete the subspecies “tashke”, which is no longer valid by the scientific community.
- [71] **Pierce’s disease of grapevines.** One reference is going to be checked by the authors, as it seems to be no longer valid.
- [72] **Olive leaf scorching and quick decline.** The TPDP suggested the authors avoiding the mention to countries in the text, which should be replaced by regions or continents.
- [73] Table 1 will be updated, according to the IPPC style, as required by the TPDP.
- [74] **Sampling period for symptomatic or asymptomatic plants.** The TPDP made some suggestions to the text (e.g. to check wording, to revise or be more specific in some sentences, to add references that were missing, etc.)
- [75] **Plant sample collection.** The TPDP suggested to the drafting group checking if the petiole and the midrib recovered from leaf samples are “a good” sources for diagnosis or “the best” sources for diagnosis and the rationale for this statement. They also suggested including a reference for the EU-funded project XF-ACTORS mentioned in the text or removing this information if no reference is found.
- [76] **Sampling of asymptomatic plants.** The TPDP recommended the drafting group to check if twigs are the best matrix for the detection of the bacterium in olive trees, or if it is a general statement. They also recommended the drafting group to re-evaluate the added value of a sentence and reference with regard to the detailed guidance on the minimum amount of tissues from a plant to have consistent and reliable detection. Some sentences were re-worded during the meeting.
- [77] **Sampling of vectors.** The TPDP suggested to the drafting group checking the information about the temperature and/or volume of ethanol for the storage of insects. They presume that for insects the correct would be: -20°C and 95–99% ethanol or -80°C with or without ethanol.
- [78] **Molecular detection.** The TPDP recommended that the drafting team check some references and add a footnote for LAMP to include the license disclaimer.
- [79] **Real-time PCR using the primers and probes of Dupas *et al.* (2019).** The TPDP had a discussion about some inconsistencies between the six sets presented in the text and the information presented in Table 10. They had some questions (e.g. internal control, the inclusion of 18S) and required the drafting group to consider providing more information. They suggested to the drafting group consulting the Instructions to authors⁷, which provides guidance on interpretation of results.
- [80] The TPDP requested the authors to update the Table 11 according to the IPPC style.
- [81] **Real-time PCR using the primers and probes of Hodgetts *et al.* (2021).** The TPDP asked the drafting group to clarify the different subspecies of the 8 strains of *X. fastidiosa* evaluated by Hodgetts *et al.* (2021).
- [82] The TPDP requested the authors to update the Table 13 according to the IPPC style. They also asked the drafting group to check how the reaction was conducted according to the reference provided.
- [83] **LAMP of Harper *et al.* (2010, erratum 2013).** The TPDP asked the drafting group to clarify the information that is valid for LAMP in the sentence: “*The LAMP and real-time assays could detect 250 and 10 copies of the rim gene, respectively*”. Table 14 will be updated according to the IPPC style, as required

by the TPDP. Also, on the description of a positive result expressed by a colour change from purple to light blue, the TPDP suggested to the drafting group including a figure showing this, if possible.

- [84] **LAMP of Harper *et al.* (2010, erratum 2013) modified by Yaseen *et al.* (2015).** The TPDP recommended the drafting group to clarify whether there is a range for diagnostic sensitivity and specificity.
- [85] **Interpretation of results for Real-time PCR.** The TPDP asked the drafting group to provide clarification on the sentence about the establishment of a cut-off value.
- [86] **Identification / Isolation.** The TPDP suggested to check and possibly update a reference (EPPO, 2018). The TPDP recommended that the drafting group re-word this sentence, considering that isolating the bacteria from the insect vectors is difficult.
- [87] **Pathogenicity tests.** The TPDP asked the drafting group to provide a reference to the susceptible varieties that are not present in the EPPO protocol.
- [88] **Multilocus sequence typing (MLST).** The TPDP recommended that the drafting group refer to the Appendix 6 of the EPPO protocol.
- [89] **Subspecies-specific PCR.** The TPDP recommended that the drafting group consider merging this section with the previous one (MLST).
- [90] **Contact Points for Further Information.** The TPDP suggested to the drafting group updating this section according to the recommendation provided to the draft revision of DP 5.
- [91] **References.** The TPDP asked the drafting group to review this section, as some references are not mentioned in the text of the protocol, others need to be adjusted or updated.
- [92] The TPDP:
 - (16) *thanked* the drafting group of this draft DP - Revision of DP 25 *Xylella fastidiosa* (2021-003);
 - (17) *agreed* to recommend this draft DP to the expert consultation.

6.2 Revision of DP 09 Genus *Anastrepha* (2021-002)

- [93] The discipline lead, Norman BARR, presented the document and the rationale for the revision of DP 09. The revision addressed new abilities for diagnosis through molecular methods and included other species of this genus.
- [94] **Pest Information.** The TPDP asked the drafting group to check the mention of unpublished data in the text. They also recommended that the authors clarify the features of the host fruit that influence the number of eggs deposited. The drafting group should also check the definitions of hosts in the draft annex to ISPM 37 (Criteria for evaluation of available information for determining host status of fruit to fruit flies (2018-011) and in the draft DP for Genus *Ceratitis* (2016-001), both drafts went for consultation period in 2022. The TPDP also suggested to the authors checking the information that Sapotaceous fruits are hosts for the species groups: *dentata*, *leptozona*, *serpentina*, *daciformis*, *robusta* and *cryptostrepha*.
- [95] **Table 1.** The TPDP suggested that the authors consult the DP for Genus *Ceratitis* on the term “relevant names”, for consistency.
- [96] **Detection.** The TPDP suggested to the authors checking the DP for Genus *Ceratitis* on the term “containers”, for consistency.

- [97] **Inspection of fruits.** The TPDP suggested to the authors checking the draft DP for Genus *Ceratitis* on the instruction to inspect for pupae when larval exit holes are observed. The EPPO representative questioned the presence of instructions for inspectors in a diagnostic protocol.
- [98] **Trapping.** The TPDP asked the authors to include ISPM 26 in the references list. They also suggested to the drafting group to cross-check the information stated in the last sentence of this section on methods of trap deployment and time of service of the traps with the ones present in the DP for Genus *Ceratitis*.
- [99] **Rearing larvae to obtain adults.** The TPDP recommended the drafting group to check the information of this subsection in the draft DP for Genus *Ceratitis*, for consistency, and to add more information about feeding.
- [100] **Wings.** The TPDP recommended that the drafting group check this subsection's format in the draft DP for Genus *Ceratitis*, for consistency.
- [101] **Preparation of larvae for morphological identification.** Regarding the information on the larval preparation, the TPDP recommended that the authors check the format for SOP style format. They also asked the authors to revise the wording “on a coffee cup warmer” and check the information in the DP revision for Genus *Ceratitis* about specimen preparation for observation.
- [102] The TPDP discussed the use of a scanning electron microscope (SEM) for morphological examination of larvae of *Ceratitis* and *Anastrepha*. They suggested to the discipline lead considering, after agreement with the drafting group, to copy the information on the use of stereomicroscope from this draft DP into the draft revision of DP for Genus *Ceratitis*.
- [103] The TPDP also recommended the authors to provide a reference to the statement on the “critical-point dried” that the specimens should be before mounting on stubs.
- [104] **Table 2.** The TPDP suggested to the authors checking the terminology (e.g. *bcu*, *cua*) and to add the source character name.
- [105] **Molecular identification of economically important species of *Anastrepha*.** The TPDP recommended the authors revise the information on the sampling of the pests used to confirm diagnostic specificity and check whether the term “analytical specificity” could replace “diagnostic specificity”.
- [106] **DNA extraction methods.** The TPDP suggested that the drafting group check the comments on larvae preparation in the draft DP revision for Genus *Ceratitis*.
- [107] **COI PCR amplification tests for *Anastrepha* species.** The TPDP observed that one reference cited in this subsection was not listed in the references list and also asked the authors to verify whether 2 sets of primers are needed.
- [108] **ITS2 PCR amplification tests for *Anastrepha* species.** The TPDP suggested that the authors consider relocating one sentence of this subsection to the sequence analysis section.
- [109] **Table 6.** The TPDP recommended the authors to provide information about a specific amplification kit and to consider to add a disclaimer.
- [110] **DNA sequence editing and analysis.** The TPDP suggested the authors including information on ITS2 in this subsection and to check the DP for cassava mite, for consistency.
- [111] At this point of the meeting, the TPDP agreed that the remaining part of the molecular section will be discussed in the next TPDP meeting, as it still has to be revised by the drafting group.
- [112] A global review on the references list to update information was also suggested by the TPDP.

[113] The TPDP:

- (18) *thanked* the drafting group of this draft DP - Revision of DP 09 Genus *Anastrepha* (2021-002);
- (19) *asked* the authors to complete the revision of this draft on the molecular section to be reviewed by the TPDP before submission to the expert consultation.

6.3 Pospiviroid species (except Potato spindle tuber viroid (DP 7)) (2018 -031)

[114] The discipline lead, Vessela MAVRODIEVA, presented the draft DP and explained that it was adapted from EPPO protocol PM 7/138 Pospiviroid (2021) and the IPPC DP 7 PSTVd (2015). The TPDP was invited to provide comments on the document.

[115] **Pest Information.** The authors were asked to check some format details such as acronyms, references and a paragraph moving to other section. One TPDP member questioned on regulation of pospiviroid in EPPO Global Database and asked the authors to check this information.

[116] **Taxonomic Information.** The TPDP recommended the drafting group to check the taxonomy of viroids and the Instruction to authors with regard to the order of information presented in the protocol.

[117] **Figure 1.** The TPDP suggested to the authors reviewing this figure and provide the editions suggested in the draft.

[118] **Host range and symptoms.** The TPDP suggested to the authors checking references, links, a scientific name to be included and other format details.

[119] **Table 1.** The TPDP recommended the authors to review the table and address the common names, if needed.

[120] **Leaves.** The TPDP suggested to the authors checking a synonym (*S. jasminoides*) and a scientific name (*S. jamesonii*).

[121] **Microplants.** The TPDP suggested to the authors adding the Latin name for petunia.

[122] **Molecular detection.** The TPDP had in-depth discussions on this section and the draft DP was revised accordingly.

[123] **Sample preparation.** The TPDP recommended the discipline lead to check information about validation with the authors and in EPPO protocol 7/138. This subsection will be reviewed and re-worded, as needed.

[124] **Bark (woody tissues) and roots.** The TPDP suggested to the authors checking the format and keep the relevant information. Also, to check the reference regarding time and number of cycles.

[125] **RNA extraction.** The TPDP suggested to the authors checking the mention of manufacturer for equipment or reagents and a reference not present in the references list.

[126] **Method 3 (Dang et al, 2022).** The TPDP recommended that the authors simplify this paragraph, as the reference cited has open access.

[127] **Leaves and microplants.** The TPDP recommended the authors to check the manufacturers.

[128] **Homogenization in GH+ buffer.** The TPDP suggested to the authors revising the paragraph that cites a thermomixer, in order to avoid this mention.

[129] **Homogenisation in phosphate buffer.** The TPDP suggested the authors re-wording the last sentence of the first paragraph for clarification, avoiding repetitions.

- [130] **Tubers.** The TPDP suggested that the authors add a paragraph to precise on which sample these methods can be used, consider moving these methods to the relevant paragraph, or make reference to this section in the previous sections.
- [131] **EDTA method.** The TPDP asked the authors to add a reference if they decide to keep the last sentence of this topic.
- [132] **Magnetic bead (KingFisher) method.** The TPDP suggested to the authors considering on the inclusion of the text of the footnote into the main text.
- [133] **Detection.** The TPDP agreed that the first paragraph should be revised by the authors. It was suggested to the discipline lead checking with the authors whether it is relevant to maintain the Table 3 or make reference to EPPO protocol (2021). If the authors decide to keep Table 3, it should be included in the main text of the protocol. A reference cited in this paragraph is not present in the references list.
- [134] **Conventional RT-PCR.** The TPDP suggested to check all tables and adjust them according to the IPPC format. It was noted an information in the footnote of the table on the primers list that should be confirmed. An information given in the master mixes composition should be checked and re-worded.
- [135] **Real-time RT-PCR for the detection of pospiviroids in seeds: Pospisense test (Botermans et al, 2020).** The TPDP provided suggestions of text adjustment and reference checking, which were mentioned in the draft DP document.
- [136] **Real-time RT-PCR for the detection of pospiviroids in seeds: Naktuinbouw (2017).** The TPDP suggested to the authors include a reference in the first sentence and check the topic's last sentence on master mixes composition.
- [137] **Real-time RT-PCR for the detection of CSVd in all matrices.** The TPDP recommended that the authors check if there is no probe for CSVd (or SYBR Green) and include a reference in the last sentence of the topic on master mixes composition.
- [138] **High Throughput Sequencing.** The TPDP requested the authors include additional reference and text explaining the need for validation. It was also recommended to re-word the text about limit of detection. Lastly, it was asked to add a reference on the information in the last sentence of this topic.
- [139] **Internal control (IC).** The TPDP suggested to the authors checking the information, as internal control is not in use in this protocol. It was also pointed out to check the synonyms and preferred names.
- [140] **Real-time RT-PCR.** The TPDP suggested to the authors checking the information on exponential curves given by PEC and PAC or re-wording the text.
- [141] **Identification.** The TPDP discussed accuracy and advised the authors to re-word the last paragraph of this topic, considering the added value for the DP.
- [142] The TPDP requested the Secretariat to complete the sections on Contact Points for Further Information and Acknowledgements. The section on References has also to be reviewed and updated by the authors.
- [143] Lastly, the TPDP suggested that the authors check one information (NPPO-NL) in the Table 2 of the Appendix 1.
- [144] The TPDP:
- (20) *thanked* the drafting group of this draft DP - Pospiviroid species (except Potato spindle tuber viroid (DP 7)) (2018 -031);

- (21) *asked* the authors to revise and update this draft to be reviewed by the TPDP before submission to the expert consultation.

7. TPDP work programme: Review of topics in the work programme

7.1 Review of the TPDP Specification

- [145] The secretariat presented the Specification TP 1. The TPDP was informed that the SC discussed the TPDP membership and wondered the need for additional experts, especially for bacteriology. The SC had asked the TPDP to review the collective expertise on the Panel and bring a recommendation to a future SC meeting if they wished to add another member for bacteriology, as this may imply in the revision of the TPDP Specification TP 1.
- [146] The TPDP had a brainstorming on the content of the Specification TP 1 and possible improvements, including the possibility of having additional members. All tasks, expertise and other details were discussed.
- [147] The Secretariat reminded the TPDP that the ISO project (task 9) no longer exists. The text was updated, removing the mention to the ISO project. A sentence on the possibility to invite the lead authors to attend the TPDP meetings, which was decided by the SC on November 2012, was included. The TPDP also suggested to the secretariat adding a TPDP task about planning.
- [148] The TPDP:
- (22) *noted* the text amendment on the possibility to invite the lead authors to attend the TPDP meetings, as decided by the SC in 2012;
 - (23) *agreed* to recommend to the SC to have additional members in the TPDP;
 - (24) *agreed* to submit the updated Specification TP 1 to the SC for approval.

7.2 Review of draft DPs in the work programme

- [149] The IPPC secretariat introduced the review of draft DPs in the work programme¹⁴, and invited the TPDP to comment. There are currently 27 subjects (diagnostic protocols) in the TPDP work programme at various stage of development: one pending, two with drafting group incomplete, two under consultation period and 22 under development. The subjects presented are also reflected at the List of Topics for IPPC standards.¹⁵
1. Tephritidae: Identification of immature stages of fruit flies of economic importance by molecular techniques (2006-028)
 2. Begomoviruses transmitted by *Bemisia tabaci* (2006-023)
 3. Genus *Ceratitis* (2016-001)
 4. *Mononychelus tanajoa* (2018-006)
 5. *Cronartium comandrae* Peck (2018-015)
 6. *Meloidogyne mali* (2018-019)

¹⁴ 11_TPDP_2022_Oct_Nov

¹⁵ List of topics for IPPC standards: www.ippc.int/en/publications/91208/

7. Citrus leprosis virus (2018-025)
8. Psyllid vectors of *Candidatus Liberibacter solanacearum* (2018-030)
9. Pospiviroid species (except Potato spindle tuber viroid (DP 7)) (2018-031)
10. *Acidovorax avenae* subsp. *citrulli* (2018-032)
11. *Microcyclus ulei* (2019-003)
12. *Puccinia graminis* f. sp. *tritici* UG 99 (2019-004)
13. *Moniliophthora roreri* (2019-005)
14. *Amaranthus palmeri* (2019-006)
15. *Solanum rostratum* 2019-007
16. *Pyricularia oryzae* (syn. *Magnaporthe oryzae*) on *Triticum* spp. (2019-010)
17. Revision of DP 5 (*Phyllosticta citricarpa* (McAlpine)) Aa (2019-011)
18. Revision of DP 03: *Trogoderma granarium* Everts (2021-001)
19. Revision of DP 09 Genus *Anastrepha* (2021-002)
20. Revision of DP 25 *Xylella fastidiosa* (2021-003)
21. Revision of DP 27 *Ips* spp. (2021-004)
22. *Bactrocera zonata* (Saunders, 1842) (2021-013)
23. *Dickeya* spp. on potato (2021-014)
24. *Heterobasidion annosum* (2021-015)
25. *Spodoptera frugiperda* (Fall Armyworm) (2021-016)
26. *Drosophila suzukii* (Diptera: Drosophilidae) (2021-017)
27. Tomato brown rugose fruit virus (2021-025)

[150] Two draft DPs were submitted to consultation period and discussed at this meeting: Genus *Ceratitis* (2016-001) and *Mononychelus tanajoa* (2018-006).

[151] Two draft DPs were submitted to expert consultation and discussed at this meeting: Revision of DP 5 (*Phyllosticta citricarpa* (McAlpine)) Aa (2019-011) and Revision of DP 27 *Ips* spp. (2021-004).

[152] Three draft DPs discussed at this meeting are expected to be submitted to expert consultation: Pospiviroid species (except Potato spindle tuber viroid (DP 7)) (2018-031), Revision of DP 09 Genus *Anastrepha* (2021-002) and Revision of DP 25 *Xylella fastidiosa* (2021-003).

[153] One draft DP discussed at this meeting is expected to be removed from the TPDP working programme: Begomoviruses transmitted by *Bemisia tabaci* (2006-023).

[154] One draft DP discussed at the TPDP July meeting is expected to have its cope adjusted: *Puccinia graminis* f. sp. *tritici* UG 99 (2019-004).

[155] Two draft DPs with their drafting group incomplete are: *Microcylus ulei* (2019-003) and *Moniliophthora roreri* (2019-005).

[156] The draft DP that has the “pending status” is Tephritidae: Identification of immature stages of fruit flies of economic importance by molecular techniques (2006-028).

[157] Two draft DPs were expecting to have referees assigned: Pospiviroid species (except Potato spindle tuber viroid (DP 7)) (2018-031) and Revision of DP 25 *Xylella fastidiosa* (2021-003). The TPDP agreed to assign Julie PATTEMORE and Géraldine ANTHOINE, respectively, as referees for these draft DPs. The TPDP also noted that, once the new virologist is on board, he/she should be referee for the Pospiviroid species (2018-031).

[158] The TPDP:

- (25) *noted* the current subjects in the TPDP work programme;
- (26) *agreed* to assign Julie PATTEMORE as referee for the draft DP Pospiviroid species (except Potato spindle tuber viroid (DP 7)) (2018-031);
- (27) *agreed* to assign Géraldine ANTHOINE as referee for the draft DP Revision of DP 25 *Xylella fastidiosa* (2021-003).

7.3 Proposal for removal from the working programme: Begomoviruses transmitted by *Bemisia tabaci* (2006-023)

[159] The discipline lead for this draft DP, Vessela MAVRODIEVA, presented the document and the rationale for the proposal to remove this draft DP from the TPDP work programme.¹⁶ She explained that the genus Begomovirus consists of more than 300 species that infects more than 400 host species, including some very important commodities, such as tomato, cassava and cucurbits. She mentioned aspects related to the high genetic variations within the begomoviruses and the complicate identification of species.

[160] During the discussion, it was said that EPPO has a protocol on this topic, which provides a generic test but it has a specific identification. Also, some countries have Begomovirus in the list of regulated pests, which suggests that these countries have means to perform the identification.

[161] The TPDP suggested the discipline lead to include the existence of an EPPO protocol in the justification to be submitted to the SC. Another option could be a more focused DP, but this proposal has to be submitted through the IPPC call for topics.

[162] The TPDP asked the discipline lead to amend the document and return the updated proposal for removal of the subject Begomoviruses transmitted by *Bemisia tabaci* (2006-023) to the TPDP for review and approval via e-decision. Once approved, the document will be submitted to the SC with a recommendation from the TPDP to remove this subject from its work programme.

[163] The TPDP:

- (28) *noted* the content of the document and *proposed* some amendments;
- (29) *asked* the discipline lead to amend the document and return it to the TPDP for review and approval to be submitted to the SC.

¹⁶ 04_TPDP_2022_Oct_Nov

7.4 Quality assurance issues associated with diagnostic protocols for regulated pests

- [164] Norman BARR introduced the document, which compiles terminology related to DP. The objective is to help the author with harmonization, but this is not a glossary. It was pointed out that this is a “live document” of the TPDP.
- [165] The document was presented at the TPDP 2018 November meeting. On that occasion, the TPDP considered that this document should be revised and could be a guide for discipline leads. Then, the TPDP asked Mr BARR to review and present the document at the next meeting.
- [166] The EPPO representative provided comments in the text and mentioned a table of correspondence for different terminology, which can be accessed in the revision of the EPPO standards PM 7/98 “Specific requirements for laboratories preparing accreditation for a plant pest diagnostic activity”.¹⁷ She also suggested the inclusion of a column for the IPPC glossary in the referred table.
- [167] The TPDP requested that the mentioned table will be made available for the next meeting.
- [168] **Nucleic Acids Controls.** The EPPO representative suggested to add a note to clarify controls when an EPPO protocol is used to prepare an IPPC protocol, as the terminology is slightly different. She also pointed out that a description of internal controls is missing in the quality assurance document. The TPDP agreed with both suggestions.
- [169] **Diagnostic sensitivity** and **Diagnostic specificity.** The EPPO representative also suggested wording for the sub-items.
- [170] **Validation** and **Verification.** The EPPO representative informed that, for both sub-sections, EPPO refers to the process described in PM7/98. The TPDP suggested to check the mentioned reference and ISO 17025:2017 cited in the text.
- [171] EPPO representative provided an updated reference to the EPPO (2018) PM 7/76 (5) useful for the whole document.
- [172] The TPDP agreed with the changes proposed by Mr BARR and EPPO’s suggestions and asked the document’s author to update the document considering these suggestions, ISO 17025:2017 definitions and the instructions to authors.⁷
- [173] The TPDP:
- (30) asked Norman BARR to review and update the document “Quality assurance issues associated with diagnostic protocols for regulated pests” and present it during the next face to face TPDP meeting.

7.5 Instructions to authors of diagnostic protocols

- [174] The IPPC secretariat presented the [document](#), and invited the TPDP to comment.
- [175] The TPDP discussed the content of the document and agreed to replace positive nucleic acid control with positive amplification control (PAC) as a global change. They also requested to add a sentence requiring the authors to maintain the track changes activated, to facilitate the revision by the discipline leads.
- [176] The TPDP:

¹⁷ <https://onlinelibrary.wiley.com/doi/epdf/10.1111/epp.12780>

- (31) *noted* the content of the document;
- (32) *asked* the secretariat to make the proposed changes in the text and post the updated version on the International Phytosanitary Portal (IPP)¹⁸.

7.6 TPDP Working procedures and Checklists for discipline leads and referees

[177] The IPPC secretariat introduced the document on the TPDP working procedures, noting that some comments made throughout the meeting could impact the working procedures¹⁹, which would also imply reviewing Specification TP 1, such as adding another member for bacteriology⁴. However, this should be discussed first during the SC meeting before being discussed by the TPDP. The TPDP suggested to the secretariat presenting this document in a future TPDP meeting after the revision of Specification TP1.

[178] The secretariat presented the checklists for discipline leads and referees. The TPDP had no comment on the Checklist for discipline leads and referees.

[179] The TPDP:

- (33) *noted* the content of the document on the TPDP working procedures and the checklists for discipline leads and referees;
- (34) *suggested* to the secretariat presenting the document on the TPDP working procedures in a future TPDP meeting, after the revision of Specification TP1 by the SC.

7.7 TPDP procedures for DPs without drafting group

[180] One of the TPDP members who drafted the paper, Norman BARR, introduced the document.²⁰ First, he summarised the process of call for DP authors and other procedures for nominations and the selection of drafting teams by the TPDP. Then, he mentioned situations in which no nominations, insufficient ones or qualified experts are received. He also detailed the procedure for selecting topics to compose the LOT and the criteria to assign the priorities, which should be based on the number of laboratories undertaking the diagnosis and the feasibility of production of a protocol, including the availability of knowledge and expertise.

[181] Mr BARR then presented the proposed process when insufficient nominations are available for a drafting team. If the first call is insufficient to select a three-authors team, a second call would be opened. If the second call fails to develop a robust list of authors, a smaller drafting group would be formed to initiate the work. The selected author(s) can suggest additional experts to the team later. If none are identified, it should be determined if the authors can complete project without additional co-authors. If additional authors are needed, then a third call for authors would be opened. If the third call for authors fails to develop a robust list of authors, then it would be considered to submit a request to the SC to: a) remove the DP from work programme (if the topic has lower priority) or b) submit a request to SC to perform a reassessment of topic rating or try to identify what NPPO or RPPO has experience in methods to diagnose the pest.

[182] The TPDP revised the paper, discussed and agreed on presenting it to the SC.

¹⁸ TPDP Instructions to authors of diagnostic protocols: <https://www.ippc.int/en/publications/tp-diagnostic-protocols-instructions-authors-diagnostic-protocols/>

¹⁹ TPDP Working Procedures: www.ippc.int/en/publications/tpdp-working-procedures-0/

²⁰ 10_TPDP_2022_Oct_Nov

[183] The TPDP:

- (35) *noted* the paper on the procedures for DPs without drafting group;
- (36) *agreed* on presenting this paper to the SC.

7.8 TPDP work plan 2022-2023

[184] The IPPC secretariat presented the document. After reviewing the list of 27 subjects present in the TPDP work programme, their current status and the discussion of eight of them during the current meeting, the TPDP updated the work plan for 2022-2023 as presented.

[185] Rationale to be transmitted to the secretariat by **15 November 2022**:

- Begomovirus transmitted by *Bemisia tabaci* (2006-023): removal from TPDP work programme

[186] Rationale to be transmitted to the secretariat by **30 November 2022**:

- Citrus leprosis virus (2018-025): scope adjustment

[187] Draft DPs to be transmitted to the secretariat by **15 December 2022**:

- Pospiviroid species (except Potato spindle tuber viroid (DP7))(2018-031): to open expert consultation
- Revision of DP 09 Genus *Anastrepha* (2021-002): to open expert consultation
- Revision of DP 25 *Xylella fastidiosa* (2021-003): to open expert consultation
- *Cronartium comandrae* Peck (2018-015): first draft
- *Bactrocera zonata* (Saunders, 1842)(2021-013): first draft
- *Heterobasidion annosum* (2021-015): first draft

[188] Rationales to be submitted to the SC for e-decision, tentatively by **31 December 2022**:

- Tephritidae: Identification of immature stages of fruit flies of economic importance by molecular techniques (2006-028): scope adjustment
- *Puccinia graminis* f. sp. tritici UG 99 (2019-004): removal from the TPDP work programme

[189] Draft DPs to be transmitted to the secretariat by **30 January 2023**:

- Revision of DP 27 *Ips* spp. (2021-004): to be submitted to the SC for first consultation
- *Drosophila suzukii* (Diptera: Drosophilidae) (2021-017): first draft
- Tomato brown rugose fruit virus (2021-025): first draft

[190] Rationale to be transmitted to the secretariat by **15 February 2023**:

- Revision of DP 5 (*Phyllosticta citricarpa* (McAlpine)) Aa (2019-011): to be submitted to the SC recommending to be put in “pending status”

[191] Draft DPs to be transmitted to the secretariat by **1 March 2023** to open the notification period (1 July to 15 August 2023) - for further adoption:

- Genus *Ceratitis* (2016-001)
- *Mononychelus tanajoa* (2018-006)

[192] Draft DP to be transmitted to the secretariat by **31 March 2023**:

- *Meloidogyne mali* (2018-019): first draft

[193] The DPs that were not abovementioned are at the initial stages of development or with the drafting group incomplete.

[194] The TPDP asked the secretariat to recommend the SC their suggestion to have two consultation periods in 2024 (in January and July) as well as to consider on having the participation of the TPDP in the process of selection of topics that is performed after each call for topics.

[195] The TPDP :

- (37) *noted* the TPDP work programme;
- (38) *agreed* with the tasks and deadlines proposed for the draft DPs mentioned in this section;
- (39) *agreed* to recommend to the SC to have two consultation periods in 2024;
- (40) *agreed* to recommend to the SC to consider the participation of the TPDP in the process of selection of topics.

8. Collaboration

8.1 European and Mediterranean Plant Protection Organization (EPPO) update on diagnostic protocols

[196] Françoise PETTER, EPPO representative, provided a presentation on EPPO update on diagnostic protocols. She reported that EPPO has five technical panels (in Bacteriology, Entomology, Nematology, Virology and Phytoplasmaology, and Mycology) and one horizontal (on Diagnostics and Quality Assurance). She explained that the panel's experts do not represent NPPOs, but each expertise. EPPO secretariat reviews the panels work, as there is no discipline leads, and stewards review the literature. EPPO diagnostic standards are aligned on IPPC DPs once issued.

[197] Ms PETTER mentioned that more than 150 EPPO diagnostic standards have been adopted since 1998.²¹ She explained the process to develop EPPO diagnostic standards, including consultation period and the proposals of revisions.

[198] Ms PETTER also commented about EPPO databases:

- [Q-bank](#), which is a database to support plant pest diagnostic activities on plant pests, to host sequence data for a number of pests, as well as to provide information on biological material, in particular from where this material can be obtained. Information is provided per discipline (arthropods, bacteria, fungi, nematodes, phytoplasmas, viruses & viroids, and invasive plants);
- [Diagnostic expertise](#), which provides an inventory of the diagnostic expertise available in the EPPO region. The database contains sections on diagnostic laboratories, experts with a description of their expertise (organisms diagnosed and methods used), auditors who perform technical audits for accreditation bodies and validation data for diagnostic tests. In 2020, in the framework of the

²¹ EPPO Standards – PM 7 Diagnostics: https://www.eppo.int/RESOURCES/eppo_standards/pm7_diagnostics

[VALITEST project](#), the format and content of the database was reviewed and further improved to make it more user friendly and more searchable, in particular the section on validation data for diagnostic tests. The work was based on the inputs of users gathered from surveys and during EPPO Panel meetings.

[199] Lastly, it was provided an overview about [Euphresco](#), which is a network of organisations that fund and organises research projects generally focused on regulated or emerging pests.

8.2 Caribbean Agricultural Health and Food Safety Agency (CAHFSA) update on diagnostic protocols and laboratory networking

[200] The TPDP member, Juliet GOLDSMITH, presented the Caribbean Agricultural Health and Food Safety Agency (CAHFSA).²² CAHFSA is an institution of the Caribbean Community recognised as an RPPO by the CPM and includes 15 Member States and five associated states that are British Overseas Territories. Sixty per cent of the population of the region is concentrated in Haiti. Agriculture is not a well-developed sector in some countries with economies that rely on tourism. As a result, countries are dependent on agricultural imports. CAHFSA aims to establish an effective and efficient sanitary and phytosanitary (SPS) system. The region elaborates a top 10 list of priority pests every two years; the most recent list was prepared in 2022. Emergency response plans and factsheets have been prepared for five pests in the 2018 priority list. The region is constrained by inadequate diagnostic capacity. Samples for diagnosis are sent to external labs and is supported by the Caribbean Pest Diagnostic Network (CPDN). , CAHFSA collaborates with various international bodies like the United States Agricultural Department (USDA), CABI, and the Centre de coopération Internationale en Recherche Agronomique pour le Développement (CIRAD), among others. Despite the limitations, the opportunity to have the countries close to each other and an important movement of people amongst them facilitate a common approach to regulatory systems.

[201] The TPDP :

(41) *thanked* Ms PETTER and Ms GOLDSMITH for the presentations about EPPO and CAHFSA, respectively.

8.3 Update from the IPPC Secretariat

[202] The secretariat introduced the document, which provided updates on the work of the SC, the Diagnostic Laboratory Network and the International Plant Health Conference (IPHC).

[203] Among the SC updates reported in the document, it was mentioned the number of ISPMs submitted to the consultation period through the [Online Commenting System \(OCS\)](#). One TPDP member mentioned that the feature that counts the number of the comment was not present this time and suggested to the secretariat checking the possibility to have it in the next consultation period, as it is an useful tool.

[204] The secretariat also reported on the selection of a new virologist to the TPDP. It was commented about the process of the call for a virologist and informed that the SC did not reach a consensus by that time and the selection was postponed to the [SC November meeting](#).

[205] Regarding the SC discussions on the increase of the number of TPDP members, it was mentioned that the SC discussed the membership of the TPDP and wondered the need for additional experts, especially for

²² <https://cahfsa.org/>

Bacteriology. The SC had asked the TPDP to review the collective expertise on the Panel and bring a recommendation to a future SC meeting if they wished to add another member for bacteriology, as this may imply in the revision of the TPDP Specification TP 1.⁴

[206] Concerning the workload, the secretariat informed the TPDP that it was drawn to the attention of the SC the increase of the number of DPs potentially going to be submitted to consultation in 2023. The TPDP was informed about the SC's concern on the quantity of comments and quality of DPs in this situation of many DPs being submitted to consultation and that it was raised by the secretariat the possibility of having two periods of consultation to address this issue.

[207] With regards to the improvement of ways of working, the SC requested the TPDP to discuss it and present their ideas in a future SC meeting. The TPDP discussed the issue and suggested the amendment of the Instruction for authors, the possibility of having two consultation periods, a more efficient communication with the authors on the DPs progress and with the CPs with regards to the advertisement on the IPP of the experts' consultation.

[208] **Diagnostic Laboratory Network Specialist.** The secretariat updated the TPDP on the progress of the selection process of a Diagnostic Laboratory Specialist to gather information, analyze it and make recommendations for the design of a global network of diagnostic laboratory services for plant pests. It was also informed that the selection process is still ongoing and it is expected for the consultant to start by January 2023.

[209] **International Plant Health Conference (IPHC).** The secretariat informed the TPDP about the conference, its structure and objectives, providing details on the scientific session on “*Plant pests diagnostic: its importance and its relation to food security*”, which had speeches of two TPDP members as panelists and the secretariat, in collaboration with EPPO Secretariat. The document has more details on the outcomes of this scientific section, such as the importance of the harmonization of diagnostics, the new technologies and the establishment of diagnostic networks.

[210] **IPPC Webinar on the importance of plant pests' diagnostics.** The secretariat informed the TPDP that it is still planning to have this webinar in the second quarter of 2023 and that a draft concept note will be developed and shared with the TPDP and all members will be invited.

[211] The TPDP :

- (42) *noted* the updates in this paper.
- (43) *provided* comments and discussion points.
- (44) *discussed* on whether to increase the number of TPDP members and agreed to bring the discussion to the SC.
- (45) *discussed* potential improvements to ways of working and provided suggestions to the SC.

8.4 Update on the IRSS²³ / IPPC Observatory²⁴ Study on IPPC Diagnostic Protocols

[212] The IPPC OiC for daily matters of the Implementation and Facilitation Unit (IFU), Sarah BRUNEL, presented the topic. She explained that the study on the IPPC Diagnostic Protocols was performed by the IPPC Observatory, an Implementation Committee (IC) subgroup. There are other IC subgroups that are responsible for the development of resources and materials, Phytosanitary Capacity Evaluation (PCE),

²³ IRSS: Implementation and review support system

²⁴ IPPC Observatory: <https://www.ippc.int/en/ippc-observatory/>

among other activities. As examples of publications related to the TPDP work, the Recommendation on the importance of pest diagnosis and Recommendation on Preparing to use high-throughput sequencing (HTS) technologies as a diagnostic tool for phytosanitary purposes were mentioned.

[213] The objectives of the study were to analyze the level of implementation of the IPPC Diagnostic Protocols by Contracting Parties (CPs); to identify potential problems or difficulties relating to DPs implementation to improve the use of DPs; to assist in the development of new DPs; and to give recommendations for increasing the effectiveness of the use of the DPs.

[214] To conduct the study, a survey was launched in November 2021. Although only 27 CPs responded to the questionnaire, the respondents came from different geographical locations, with a diversity and specificity of pests and different levels of diagnostics.

[215] The majority of the respondents use the English version of the DP, i.e. do not translate the DPs to their own languages. However, Arabic- and Chinese-speaking countries did not participate in the survey. The limiting factors are the absence of relevant adopted protocols and existing national or regional DPs, but the lack of technical expertise of laboratory staff and unavailability of equipment and consumables were also considered as limiting by the respondents. Most of the countries considered the DPs relevant, but many countries still do not use it. The countries that use the DPs responded that they are used mainly by their diagnosticians, but some countries also responded that the DPs are used by their researchers. The countries use the DPs for many purposes: first time detection of a pest (18%), routine diagnosis (18%), surveillance (19%), export certification (15%), and pest declaration (e.g. pest status). Most of the countries responded that they have laboratories for pest diagnosis.

[216] The conclusions and recommendations to the TPDP taken from the study were:

- The responses show a great deal of interest in the further development of the DPs. CPs have proposed more than 50 harmful organisms for the development of the new DPs.
- Many laboratories are interested not only in the production of diagnostic protocols, but also in other topics related to diagnostics. Due to the great interest of CPs in the development of many important aspects related to phytosanitary diagnostics, such as validation and verification of methods, implementation of new molecular techniques, management of reference collections, waste management, etc., it would be helpful to recommend TPDP to broaden the scope of their activities.
- Thirty percent of responding CPs do not know about the IPPC Call for topics to develop new DPs. The CPs should be more actively involved in preparing a priority list of pests for the development of new DPs.
- Based on the data obtained, it is difficult to give an objective assessment of whether it is necessary to translate the DPs into the official languages of the UN. To make such a decision, it is necessary to obtain additional information from Chinese and Arabic speaking countries at least.

[217] The TPDP:

- (46) *thanked* Ms BRUNEL from the IPPC Secretariat for the presentation;
- (47) *noted* the content of the IRSS / IPPC Observatory study on the IPPC diagnostic protocols.

9. Any other business

[218] No other business was raised.

10. Recommendations to the Standards Committee (SC)

[219] Recommendation to the SC are described in previous sections of this report. To facilitate reference they are compiled below.

[220] The SC is invited to:

- (1) *approve* the scope adjustment of the DPs for Tephritidae: Identification of immature stages of fruit flies of economic importance by molecular techniques (2006-028) and Citrus leprosis virus (2018-025);
- (2) *approve* the removal of the DPs for *Puccinia graminis f. sp. tritici* UG 99 (2019-004) and Begomovirus transmitted by *Bemisia tabaci* (2006-023) from the TPDP work programme;
- (3) *approve* the draft revision of DP 5 (*Phyllosticta citricarpa* (McAlpine)) Aa (2019-011) to be put in “pending status”;
- (4) *approve* the draft revision of DP 27 *Ips* spp. (2021-004) to be submitted for first consultation;
- (5) *approve* the draft DPs for Genus *Ceratitis* (2016-001) and *Mononychelus tanajoa* (2018-006) for adoption.
- (6) *note* the text amendment on the possibility to invite the lead authors to attend the TPDP meetings, as decided by the SC in 2012;
- (7) *consider* to have two consultation periods for DPs (January and July) in 2024;
- (8) *consider* to have additional members in the TPDP;
- (9) *consider* to amend the Specification TP 1.
- (10) *consider* to have the participation of the TPDP in the process of selection of subjects for the work programme to better assess the feasibility of developing a DP.

11. Closing of the meeting

[221] The TPDP thanked the secretariat staff for their professional support and dedication to the work.

[222] The secretariat thanked the participants for their active participation.

[223] The chairperson thanked the participants for their contributions and closed the meeting.

Appendix 1: Agenda

Agenda Item		Document No.	Presenter
1.	Opening of the Meeting		
1.1	Welcome by the IPPC Secretariat	--	MOREIRA (IPPC Secretariat)
1.2	Welcome by the host European and Mediterranean Plant Protection Organization (EPPO)		EPPO Secretariat
2.	Meeting Arrangements		
2.1	Selection of Chairperson	--	IPPC Secretariat
2.2	Selection of the Rapporteur	--	Chairperson
2.3	Adoption of the Agenda	01_TPDP_2022_Oct_Nov	Chairperson
3.	Administrative Matters		
3.1	Documents List	02_TPDP_2022_Oct_Nov	MANGILI
3.2	Participants List / membership list	TPDP membership list 03_TPDP_2022_Oct_Nov	
3.3	Review of the IPPC standard setting procedure	Link to video (PPT link)	MANGILI / MOREIRA
4.	Recommendation to the SC: Review of draft diagnostic protocols (DPs) (from IPPC consultation period)		
4.1	<i>Mononychelus tanajoa</i> (2018-006) Discipline lead: Juliet GOLDSMITH Referee: Norman BARR - Compiled comments - Responses to compiled comments - Summary of major comments received	2018-006 13_TPDP_2022_Oct_Nov 14_TPDP_2022_Oct_Nov	GOLDSMITH
4.2	Genus <i>Ceratitis</i> (2016-001) Discipline lead: Juliet GOLDSMITH Referee: Géraldine ANTHOINE - Compiled comments - Responses to compiled comments - Summary of major comments received	2016-001 07_TPDP_2022_Oct_Nov 08_TPDP_2022_Oct_Nov	GOLDSMITH
5. Recommendation to the SC: Review of draft DPs (from IPPC DP Expert Consultation)			
Review of draft DPs (for recommendation for approval for first consultation): Link to ECDP			
5.1	Revision of DP 27 – <i>Ips</i> spp. (2021-004)	2021-004	BARR

Agenda Item		Document No.	Presenter
	<ul style="list-style-type: none"> Summary of major comments received 	05_TPDP_2022_Oct_Nov	
5.2	Revision of DP 5 - <i>Phyllosticta citricarpa</i> (McAlpine) Aa (2019-011) <ul style="list-style-type: none"> Summary of major comments received 	2019-011 06_TPDP_2022_Oct_Nov	RIVERA
6.	TPDP work programme: Review of draft DPs		
6.1	Revision of DP 25 <i>Xylella fastidiosa</i> (2021-003)	2021-003	TAYLOR
6.2	Revision of DP 09 Genus <i>Anastrepha</i> (2021-002)	2021-002	BARR
6.3	Pospiviroid species (except <i>Potato spindle tuber viroid</i> (DP 7)) (2018 -031)	2018 -031	MAVRODIEVA
7.	TPDP work programme: Review of topics in the work programme		
7.1	Review of the TPDP Specification	Link to TPDP Specification – TP 01 (see also paper 12_TPDP_2022_Oct_Nov under agenda item 8.3)	Chairperson / IPPC Secretariat
7.2	Review of draft DPs in the work programme	11_TPDP_2022_Oct_Nov Link to List of topics for IPPC Standards Link to IPPC DPs drafting groups list	Chairperson / IPPC Secretariat
7.3	Proposal for removal from the working programme: Begomoviruses transmitted by <i>Bemisia tabaci</i> (2006-023)	04_TPDP_2022_Oct_Nov	MAVRODIEVA
7.4	Quality assurance issues associated with diagnostic protocols for regulated pests	09_TPDP_2022_Oct_Nov	BARR
7.5	Instructions to authors of diagnostic protocols	Link to Instruction to authors	Chairperson / IPPC Secretariat
7.6	TPDP Working procedures and Checklists for discipline leads and referees	TPDP Working procedures Checklist for discipline leads and referees (work area page)	Chairperson / IPPC Secretariat
7.7	TPDP procedures for DPs without drafting group	10_TPDP_2022_Oct	BARR / TAYLOR / PATTEMORE

Agenda Item		Document No.	Presenter
7.8	TPDP work plan 2022-2023	(PPT file – to be finalised at the meeting)	IPPC Secretariat
8.	Collaboration		
8.1	European and Mediterranean Plant Protection Organization (EPPO) update on diagnostic protocols	-	PETTER
8.2	Caribbean Agricultural Health and Food Safety Agency (CAHFSA)	-	GOLDSMITH
8.3	Update from the IPPC Secretariat	12_TPDP_2022_Oct_Nov	MOREIRA / MANGILI
8.4	Update on the IRSS/IPPC Observatory Study on IPPC Diagnostic Protocols	(PPT file) IPPC Observatory link	BRUNEL (IPPC Secretariat) (video call)
9.	Any other business	--	IPPC Secretariat
10.	Recommendations to the Standards Committee (SC) or IPPC Secretariat	--	IPPC Secretariat / Chairperson
11.	Closing of the meeting	--	IPPC Secretariat / Chairperson

Appendix 2: Documents list

DOCUMENT NO.	AGENDA ITEM	DOCUMENT TITLE	POSTED
01_TPDP_2022_Oct_Nov	2.3	Agenda	2022-10-11 (1 st version) 2022-10-24 (final draft version)
02_TPDP_2022_Oct_Nov	3.1	Documents list	2022-10-24
03_TPDP_2022_Oct_Nov	3.2	Participants list	
04_TPDP_2022_Oct_Nov	7.3	Proposal for removal from the working programme: Begomoviruses transmitted by <i>Bemisia tabaci</i> (2006-023)	2022-10-14
05_TPDP_2022_Oct_Nov	5.1	Summary of major comments received: Revision of DP 27 – <i>Ips</i> spp. (2021-004)	2022-10-14
06_TPDP_2022_Oct_Nov	5.2	Summary of major comments received: Revision of DP 5 - <i>Phyllosticta citricarpa</i> (McAlpine) Aa (2019-011)	2022-10-23
07_TPDP_2022_Oct_Nov	4.2	Responses to compiled comments - Genus <i>Ceratitis</i>	2022-10-23
08_TPDP_2022_Oct_Nov	4.2	Summary of major comments received - Genus <i>Ceratitis</i>	2022-10-23
09_TPDP_2022_Oct_Nov	7.4	Quality assurance issues associated with diagnostic protocols for regulated pests	2022-10-23
10_TPDP_2022_Oct_Nov	7.7	TPDP procedures for DPs without drafting group	2022-10-23
11_TPDP_2022_Oct_Nov	7.2	Review of draft DPs in the work programme	2022-10-24
12_TPDP_2022_Oct_Nov	8.3	Update from the IPPC Secretariat	2022-10-24
13_TPDP_2022_Oct_Nov	4.1	Responses to compiled comments: <i>Mononychelus tanajoa</i> (2018-006)	2022-10-24
14_TPDP_2022_Oct_Nov	4.1	Summary of major comments received: <i>Mononychelus tanajoa</i> (2018-006)	2022-10-24

List of draft DPs

DOCUMENT NO.	AGENDA ITEM	DOCUMENT TITLE	POSTED
2018-006	4.1	<i>Mononychelus tanajoa</i> (2018-006)	2022-10-24
2016-001	4.2	Genus <i>Ceratitis</i> (2016-001)	2022-10-23
2021-004	5.1	Revision of DP 27 – <i>Ips</i> spp. (2021-004)	2022-10-19

2019-011	5.2	Revision of DP 5 - <i>Phyllosticta citricarpa</i> (McAlpine) Aa (2019-011)	2022-10-23
2021-003	6.1	Revision of DP 25 <i>Xylella fastidiosa</i> (2021-003)	2022-10-14
2021-002	6.2	Revision of DP 09 Genus <i>Anastrepha</i> (2021-002)	2022-10-14
2018 -031	6.3	Pospiviroid species (except Potato spindle tuber viroid (DP 7)) (2018 -031)	2022-10-24

Documents links (presented in the order of the agenda items)

Links	AGENDA ITEM	DOCUMENT LINK
TPDP Membership list	3.2	TPDP membership list
Review of the IPPC standard setting procedure	3.3	IPPC standard setting procedure: video IPPC standard setting: PPT file
TPDP Specification TP 1	7.1	TPDP specification TP 1
List of Topics for IPPC Standards	7.2	Link to List of topics for IPPC Standards
DP Drafting groups list	7.2	Link to IPPC DPs drafting groups list
TPDP working procedures	various	TPDP Working procedures TPDP instructions to authors: https://www.ippc.int/en/publications/83612/ Checklist for discipline leads and referees (work area page)
IPPC Observatory	8.4	IPPC Observatory link

Additional resources

- [IPPC standard setting procedure: video](#)
- [Link to adopted ISPMs](#)
- [IPPC Strategic Framework 2020-2030](#)
- [Link to SC meeting reports](#)
- IPPC procedure manual for standard setting: <https://www.ippc.int/en/core-activities/ippc-standard-setting-procedure-manual/>
- IPPC style guide: <https://www.ippc.int/en/publications/81329/>
- Standard setting main page: <https://www.ippc.int/en/core-activities/standards-setting/>
- TPDP main page: <https://www.ippc.int/en/core-activities/standards-setting/expert-drafting-groups/technical-panels/technical-panel-diagnostic-protocols/>

Appendix 3: Participants list

✓	Participant role	Name, mailing, address, telephone	Email address	Term begins	Term ends
	Steward	Mr Álvaro SEPÚLVEDA LUQUE Servicio Agrícola y Ganadero División de Protección Agrícola y Forestal Av. PresidenteBulnes 140, 4 th floor, Santiago, CHILE Tel: + 56-2 234 5120	alvaro.sepulveda@sag.gob.cl		
✓	Bacteriology, and backup for mycology	Mr Robert TAYLOR Plant Health & Environment Laboratory New Zealand Ministry for Primary Industries 231 Morrin Road St Johns PO Box 2095 Auckland 1140 New Zealand Tel: (+64) 9 909 3548 Fax: (+64) 9 909 5739	Robert.Taylor@mpi.govt.nz	May 2011	May 2026 (3 rd term)
	Botany	Ms Liping YIN Plant Quarantine Laboratory Animal and Plant Inspection and Quarantine Technology Center Shanghai Entry-Exit Inspection and Quarantine Bureau 1208 Minsheng Road Shanghai, 200135 China Tel: (+86) 21 6854 0577 Fax: (+86) 21 6854 6481	yinlp@shciq.gov.cn ; yinlp2013@hotmail.com	April 2008	April 2023 (3 rd term)
	Botany	Ms Colette C. JACONO USA / USDA-APHIS-PPQ National Identification Services	Colette.Jacono@usda.gov	October 2020	October 2025

		<p>National Taxonomist - Botany</p> <p>Address: 10300 Baltimore Ave., BARC-W Bldg 12, Rm 10., Beltsville, MD 20705-2350</p> <p>USA</p> <p>Tel. (+1) 240 428 9658</p>			
✓	Entomology	<p>Mr Norman B. BARR</p> <p>Assistant Director Mission Laboratory</p> <p>22675 N. Moorefield Rd.</p> <p>Moore Air Base Bldg. S-6414</p> <p>Edinburg,</p> <p>TX 78541</p> <p>USA</p> <p>Tel. (+1) 956 205 7658</p> <p>Fax: (+1) 956 205 7680</p>	Norman.B.Barr@aphis.usda.gov	July 2012	July 2027 (3 rd term)
✓	Entomology	<p>Ms Juliet GOLDSMITH</p> <p>Plant Health Specialist</p> <p>Caribbean Agricultural Health and Food Agency (CAHFSA)</p> <p>Letitia Vriesdelaan 10</p> <p>Paramaribo</p> <p>SURINAME</p> <p>Tel: (+597) 422 546</p> <p>Mobile: (+597) 725 2922</p>	Juliet.goldsmith@cahfsa.org	November 2014	November 2024 (2 nd term)
✓	Nematology	<p>Ms Géraldine ANTHOINE</p> <p>Directrice adjointe / Deputy head</p> <p>Chef d'unité coordination de la référence / Head of unit "coordination of reference activities"</p> <p>7 rue Jean Dixméras</p> <p>49044 ANGERS cedex 01</p> <p>France</p> <p>Tel: (33) 241207431</p> <p>Fax: (33) 240207430</p>	geraldine.anthoine@anses.fr	April 2009	April 2024 (3 rd term)
✓	Virology	<p>Ms Vessela Assenova MAVRODIEVA</p> <p>Assistant Laboratory Director,</p>	vessela.a.mavrodieva@usda.gov	March 2020	March 2025

		USDA APHIS, PPQ, Beltsville, MD, USA Tel: (+1) 301-313-9208			
✓	Mycology	Ms Julie PATTEMORE Assistant Director: Plant Pathology, Department of Agriculture, Water and the Environment, Melbourne, AUSTRALIA Tel: (+61) 3 83186957	julie.pattmore@awe.gov.au	March 2020	March 2025
✓	Mycology	Ms Yazmin Rivera RIVERA Molecular Biologist, USDA APHIS, PPQ, Beltsville, MD, USA Tel: (+1) 301-313-9273	Yazmin.Rivera@usda.gov	March 2020	March 2025

Other participants

✓	Host - RPPO	Ms Françoise PETTER Assistant Director European and Mediterranean Plant Protection Organization (EPPO) 21 Boulevard Richard Lenoir 75011 Paris FRANCE Tel: +33 1 45 20 77 94 / Fax: +33 1 70 76 65 47	petter@epo.int
✓	IPPC Secretariat Coordinator for TPDP	Ms Adriana G. MOREIRA Standard Setting Officer (Programme Specialist) International Plant Protection Convention Secretariat (IPPC) Food and Agriculture Organization of the United Nations (FAO/UN) Viale delle Terme di Caracalla 00153 Rome, Italy Phone: + 39 06 570 55 809	Adriana.Moreira@fao.org

✓	IPPC Secretariat Assistant for TPDP	Ms Erika MANGILI ANDRÉ Standard Setting Specialist International Plant Protection Convention Secretariat (IPPC) Food and Agriculture Organization of the United Nations (FAO/UN) Viale delle Terme di Caracalla 00153 Rome, Italy	Erika.MangiliAndre@fao.org
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Appendix 04: Review of draft diagnostic protocols (DPs) in the TPDP work programme

Topic N.	Current Title	Priority	Discipline Lead	Referee	Status
2006-028	Tephritidae: Identification of immature stages of fruit flies of economic importance by molecular techniques	1	Juliet GOLDSMITH	Norman BARR	Pending To be submitted to the SC for e-decision (scope adjustment). Deadline: tentatively December 2022
2006-023	Begomoviruses transmitted by <i>Bemisia tabaci</i>	2	Vessela MAVRODIEVA	Géraldine ANTHOINE Vessela MAVRODIEVA	Draft DP under development Topic discussed at the Oct/Nov TPDP meeting
2016-001	Genus <i>Ceratitis</i>	1	Juliet GOLDSMITH	Géraldine ANTHOINE	Draft DP to first consultation Approval for notification period and further adoption
2018-006	<i>Mononychelus tanajoa</i>	1	Juliet GOLDSMITH	Norman BARR	Draft DP to first consultation Approval for notification period and further adoption
2018-015	<i>Cronartium comandrae</i> Peck	4	Yazmin-RIVERA	Géraldine ANTHOINE Julie PATTEMORE	Draft DP under development Deadline for first draft: 15 December 2022
2018-019	<i>Meloidogyne mali</i>	3	Géraldine ANTHOINE	Norman BARR	Draft DP under development Deadline for first draft: by March 2023
2018-025	Citrus leprosis virus	1	Vessela MAVRODIEVA	Norman BARR	Draft DP under development Deadline for first draft: 15 December 2022 Recommendation: scope adjustment (end of November 2022)
2018-030	Psyllid vectors of <i>Candidatus Liberibacter solanacearum</i>	1	Norman BARR	Juliet GOLDSMITH	Draft DP under development

2018-031	Pospiviroid species (except Potato spindle tuber viroid (DP 7))	2	Vessela MAVRODIEVA	Julie PATTEMORE	Draft discussed at the Oct/Nov TPDP meeting. Deadline – draft back to Secretariat: 15 December (to open an expert consultation)
2018-032	<i>Acidovorax avenae</i> subsp. <i>citrulli</i>	2	Robert TAYLOR	Géraldine ANTHOINE	Draft DP under development (to check the drafting group)
2019-003	<i>Microcyclus ulei</i>	1	Julie PATTEMORE	Géraldine ANTHOINE Yazmin RIVERA	Topic added to the List of topics (drafting group incomplete)
2019-004	<i>Puccinia graminis</i> f. sp. <i>tritici</i> UG 99	1	Yazmin RIVERA	Julie PATTEMORE	Draft DP under development E-decision is going to be submitted to the SC (tentatively in December 2022)
2019-005	<i>Moniliophthora roreri</i>	3	Julie PATTEMORE	Juliet GOLDSMITH Yazmin RIVERA	Topic added to the List of topics (drafting group incomplete) DL will contact potential authors
Topic N.	Current Title	Priority	Discipline Lead	Referee	Status
2019-006	<i>Amaranthus palmeri</i>	2	Colette JACONO Liping Yin	Juliet GOLDSMITH	Draft DP under development
2019-007	<i>Solanum rostratum</i>	2	Colette JACONO Liping Yin	Géraldine ANTHOINE	Draft DP under development
2019-010	<i>Pyricularia oryzae</i> (syn. <i>Magnaporthe oryzae</i>) on Triticum spp.	1	Julie PATTEMORE	Yazmin RIVERA	Draft DP under development
2019-011	Revision of DP 5 (<i>Phyllosticta citricarpa</i> (McAlpine)) Aa	1	Yazmin RIVERA	Robert TAYLOR Julie PATTEMORE	Draft DP from expert consultation Draft discussed at the Oct/Nov TPDP meeting. Recommendation to put on “pending status”. Deadline: 15 Feb 2023
2021-001	Revision of DP 03: <i>Trogoderma granarium</i> Everts	1	Norman BARR)	Juliet GOLDSMITH	Draft DP under development

2021-002	Revision of DP 09 Genus <i>Anastrepha</i>	2	Norman BARR	Juliet GOLDSMITH	Draft discussed at the Oct/Nov 2022 TPDP meeting. Deadline – draft back to Secretariat: 15 December 2022 (to open an expert consultation)
2021-003	Revision of DP 25 <i>Xylella fastidiosa</i>	2	Robert TAYLOR	Géraldine ANTHOINE	Draft discussed at the Oct/Nov 2022 TPDP meeting. Deadline – draft back to Secretariat: 15 December 2022 (to open an expert consultation)
2021-004	Revision of DP 27 <i>Ips</i> spp.	1	Norman BARR	Juliet GOLDSMITH	Draft DP discussed at the TPDP meeting. Deadline – draft back to Secretariat: 30 January 2023 (to be submitted to the SC for first consultation)
2021-013	<i>Bactrocera zonata</i> (Saunders, 1842)	2	Norman BARR	Juliet GOLDSMITH	Draft DP under development Deadline – first draft: 15 December 2022
2021-014	<i>Dickeya</i> spp. on potato	2	Robert TAYLOR	Géraldine ANTHOINE	Draft DP under development
2021-015	<i>Heterobasidion annosum</i>	3	Yazmin RIVERA	Robert TAYLOR	Draft DP under development Deadline – first draft: 15 December 2022
2021-016	<i>Spodoptera frugiperda</i> (Fall Armyworm)	1	Juliet GOLDSMITH	Norman BARR	Draft DP under development Lead author resigned (a new call for author is needed)
2021-017	<i>Drosophila suzukii</i> (Diptera: Drosophilidae)	1	Norman BARR	Juliet GOLDSMITH	Draft DP under development Deadline: first draft by January 2023
2021-025	Tomato brown rugose fruit virus	1	Vessela MAVRODIEVA	Géraldine ANTHOINE	Draft DP under development Deadline: first draft by January 2023 (tentatively)

Appendix 05 - Action points arising from this meeting**ACTION POINTS ARISING FROM THIS MEETING**

(by deadline)

	Action	Agenda Item	Responsible	Deadline
1.	Rationale to be transmitted to the secretariat: - Begomovirus transmitted by <i>Bemisia tabaci</i> (2006-023): removal from TPDP work programme	7.8	Discipline lead and DP drafting group	15 November 2022
2.	Rationale to be transmitted to the secretariat: - Citrus leprosis virus (2018-025): scope adjustment	7.8	Discipline lead and DP drafting group	30 November 2022
3.	Draft DPs to be transmitted to the secretariat: - Pospiviroid species (except Potato spindle tuber viroid (DP7))(2018-031): to open expert consultation - Revision of DP 09 Genus <i>Anastrepha</i> (2021-002): to open expert consultation - Revision of DP 25 <i>Xylella fastidiosa</i> (2021-003): to open expert consultation - <i>Cronartium comandrae</i> Peck (2018-015): first draft - <i>Bactrocera zonata</i> (Saunders, 1842)(2021-013): first draft - <i>Heterobasidion annosum</i> (2021-015): first draft	7.8	Discipline leads and DP drafting groups	15 December 2022:
4.	Rationales to be submitted to the SC for e-decision: - Tephritidae: Identification of immature stages of fruit flies of economic importance by molecular techniques (2006-028): scope adjustment - <i>Puccinia graminis</i> f. sp. tritici UG 99 (2019-004): removal from the TPDP work programme	7.8	Discipline leads and DP drafting groups	31 December 2022 (tentatively)
5.	Draft DPs to be transmitted to the secretariat: - Revision of DP 27 <i>Ips</i> spp. (2021-004): to be submitted to the SC for first consultation - <i>Drosophila suzukii</i> (Diptera: Drosophilidae) (2021-017): first draft - Tomato brown rugose fruit virus (2021-025): first draft	7.8	Discipline leads and DP drafting groups	30 January 2023

	Action	Agenda Item	Responsible	Deadline
6.	<p>Draft DPs to be transmitted to the secretariat:</p> <ul style="list-style-type: none"> - Revision of DP 27 <i>Ips</i> spp. (2021-004): to be submitted to the SC for first consultation - <i>Drosophila suzukii</i> (Diptera: Drosophilidae) (2021-017): first draft - Tomato brown rugose fruit virus (2021-025): first draft 	7.8	Discipline leads and DP drafting groups	30 January 2023
7.	<p>Rationale to be transmitted to the secretariat:</p> <ul style="list-style-type: none"> - Revision of DP 5 (<i>Phyllosticta citricarpa</i> (McAlpine)) Aa (2019-011): to be submitted to the SC recommending to be put in "pending status" 	7.8	Discipline lead and DP drafting group	15 February 2023
8.	<p>Draft DPs to be transmitted to the secretariat to open the notification period (5 January – 15 February or 1 July to 15 August 2023) - for further adoption:</p> <ul style="list-style-type: none"> - Genus <i>Ceratitis</i> (2016-001) - <i>Mononychelus tanajoa</i> (2018-006) 	7.8	Discipline lead and DP drafting groups	1 March 2023
9.	<p>Draft DP to be transmitted to the secretariat:</p> <ul style="list-style-type: none"> - <i>Meloidogyne mali</i> (2018-019): first draft 	7.8	Discipline lead and DP drafting group	31 March 2023
10.	Update the Specification TP 1 to be submitted to the SC for approval	7.8	Secretariat	
11.	Transmit the updated document on "Quality assurance issues associated with diagnostic protocols for regulated pests" to be presented during the next TPDP meeting	7.4	Norman BARR	
12.	Update the document on the Instructions to authors of diagnostic protocols according to the TPDP suggestions	7.5	Secretariat	
13.	Submit the paper on the procedures for DPs without drafting group to the SC	7.7	Secretariat	