



Report of the meeting of the Technical Panel on Pest Free Areas and Systems Approaches for Fruit Flies

4-8 October, 2010

Vienna, Austria

1. Introduction

The Technical Panel on pest free areas and systems approaches for Fruit Flies (TPFF) met 4-8 October 2010 in Vienna, Austria. The Joint Division of the Food and Agriculture Organization and the International Atomic Energy Agency (FAO/IAEA) hosted the meeting. The host of the meeting and the IPPC Secretariat representative welcomed the panel. The new TPFF steward, Ms Julie Aliaga (USA), was introduced. She replaces the previous steward, Mr. Odilson Ribeiro e Silva (Brazil) who resigned. The participants thanked the Joint FAO/IAEA Division for again hosting the meeting, funding participants, and making organizational arrangements to support the meeting.

All TPFF members were in attendance. Mr Martin Aluja (Mexico) from the Instituto de Ecología México, attended the meeting as an invited expert on fruit fly host status.

2. Meeting set-up

The panel adopted the agenda as presented, reviewed the working papers, selected Ms. Julie Aliaga (USA) as the meeting chair and selected Mr. Rob Duthie (Australia) as rapporteur. The IPPC Secretariat representative discussed the roles and responsibilities of meeting participants. The panel agreed that the invited expert, Mr Aluja, would make a presentation to the panel on host susceptibility as background for the development of the Draft ISPM *Protocol to determine host status of fruits and vegetables to fruit fly infestations (Tephritidae)*. The panel presented and discussed documents.

3. Decisions of other bodies and activities affecting the TPFF

The IPPC Secretariat and the steward of the TPFF provided updates on the outcomes of recent meetings, including the Commission on Phytosanitary Measures (CPM), Standards Committee (SC) and the Standards Committee Working Group (SC-7). Mr. Andrew Jessup from the Joint FAO/IAEA Division, who is also a member of the Technical Panel on Phytosanitary Treatments (TPPT), briefed the panel on relevant work of the TPPT.

The IPPC Secretariat sent the draft ISPM *Appendix to ISPM 26: Trapping procedures for fruit flies* for member consultation 14 days prior to CPM-5 (2010). The IPPC Secretariat received 84 comments. The CPM Bureau considered it unacceptable that the IPPC Secretariat received 84 urgent comments at this late stage in the standard setting process and recommended to be sent back to the SC. See Section 5 of this report for more information.

The panel discussed the status of definitions recommended by the TPFF to the Technical Panel on the Glossary (TPG) from the draft specifications for *Exclusion* and *Area-wide control*. The TPG would review the definitions before the draft ISPM was sent to the SC. Discussion with steward for the standard indicate that more revision will be necessary before this draft specification is ready to be sent to the SC.

The IPPC Secretariat and the TPFF steward reported that IPPC Secretariat staff resources continue to be insufficient for the large volume of issues being managed. To better manage the work flow for the past two years, the IPPC Secretariat has been limiting the number of ISPMs going for member consultation to the equivalent of 5 standards. Standard equivalents are determined using a weighting scheme that takes into account factors like length, complexity, etc. The IPPC Secretariat reported that

there are approximately 100 issues currently on the IPPC Secretariat work programme. A proposal to suspend or limit the standard setting work for the next year is being considered because of resource limitations.

The Secretariat presented the TPFf paper outlining a scheme for international assistance for fruit fly risk management to the Standards Committee (SC) in May 2010. The SC recommended that the paper could be presented by an NPPO at the next CPM. The Panel agreed that Mr Duthie and Mr Malavasi would revise the paper and seek NPPO endorsement for presentation at CPM-6 (2011). Several countries continue to question the validity of the use of irradiation as a phytosanitary measure as it could be difficult to determine if live (irradiated) larvae had in fact been irradiated, if detected at the border. This issue continues to delay the acceptance of irradiation dose rates for several pests as an appendix to ISPM 28:2009.

Mr Andrew Jessup (IAEA), as a member of the Technical Panel on Phytosanitary Treatments (TPPT) briefed the TPFf on relevant work of the TPPT related to his field of expertise. The TPPT met in July 2010 in Kyoto, Japan. The Japanese government has agreed to provide financial support for TPPT meetings over five years and two of these meetings have been held to date. The meeting considered 20 agenda items with approximately 100 documents submitted by countries in support of proposed treatments. The issues of fruit flies and timber products attracted the majority of papers. The TPPT considered and discussed the issues of surrogate insect species for developing quarantine treatments; use of historical data; methods to calculate concentration times treatment times for fumigation treatments; draft experimental guidelines for NPPOs for the development of cold disinfestation treatments; and the currency of various internationally used fumigation manuals. The TPPT also considered work that is currently underway by FAO/IAEA to determine a generic irradiation treatment for insects. The TPPT considered that there is insufficient data for mites, weevils, white flies and mealybugs. The TPPT rejected several treatments due to insufficient data, errors in the numbers of insects reported to be tested or insufficient provision of references cited. The TPPT is developing a guideline document outlining the data requirements for determination and acceptance of statistically valid treatments and will be considered by the Technical Panel on Forest Quarantine (TPFQ) TPFf before wider distribution.

Mr Jessup currently works for IAEA but will return to Australia in February 2011 and will seek support from the NPPO to remain on the TPPT.

4. Fruit fly ISPMs

The Panel discussed an overview on progress to date on the development of fruit fly ISPMs and supporting documents and suggested a framework for the ISPMs' future management. The Panel has finalized ISPM 26:2006 (PFA), and ISPM 30:2008 (ALPP). The Draft ISPM *Systems approaches for pest risk management of fruit flies* (SA) and the Draft ISPM *Appendix to ISPM 26: Trapping procedures for fruit flies* are under various stages of development. The Draft ISPM *Protocol to determine host status of fruits and vegetables to fruit fly infestations (Tephritidae)* is currently under development. At its November 2010 meeting, the SC will consider the Specification for *Establishment and maintenance of fruit fly regulated areas in the event of outbreak detection in pest free areas for fruit flies (for inclusion as Annex 1 of ISPM 26)* for member consultation.

The Panel suggested that the PFA, ALPP, SA and host status documents should form the key and overarching fruit fly management documents. The trapping manual, the regulated areas document and the phytosanitary procedures documents could all be appendixes to ISPM 26:2006. The Panel discussed whether or not these documents could be appendixes to all four overarching ISPMs (see Appendix 6 to this report). In particular, the TPFf has requested that the Phytosanitary Procedures for Fruit Fly Management be submitted to the SC as an annex rather than a stand-alone draft ISPM. The TPFf steward indicated that there was no precedent for repeating appendixes under each ISPM. The Panel agreed that they could be placed as supporting documents to ISPM 26:2006 and other standards could make reference to them.

The Panel discussed suggestions for future work. The TPFf plans to develop a draft of the Annex to ISPM 26:2006 on regulated areas at its 2011 meeting. This will conclude the major fruit fly risk management documents. However, the Panel agreed that TPFf members would continue to work, perhaps via email, on fruit fly standards currently under development.

The Panel suggested that consideration of climate change implications and change of fruit fly pest status would be an important future issue and suggested the development of a discussion paper for CPM consideration. It was agreed that Mr Aluja would contact a group of appropriate experts to develop a discussion document, addressed to CPM, on climate change and fruit flies with series of recommendations (workshops, etc). The TPFf steward will submit the paper to the SC for review in May 2011.

5. Trapping guidelines

Consistent with instructions from CPM-5 (2010) via the SC, the TPFf discussed the steward's responses to comments. In general, the steward agreed with most comments but asked for TPFf input on the following points:

1: COSAVE recommended referencing this appendix in ISPM 30:2008 as well as ISPM 26:2006 because trapping is used in any scenario for fruit flies and could be relevant for many standards. The TPFf recommended leaving the appendix where it is for the time-being and will consider this change in the future when the TPFf makes global recommendations for restructuring fruit fly ISPMs and appendixes.

6 and 8: COSAVE and Australia recommended that language be included to indicate that this appendix is not a prescriptive part of the standard, and the TPFf concurred that the standard language for appendixes be added to this appendix.

15: COSAVE recommended removing all text on Pest situations and survey types (item 1). The steward did not agree because removing this section would affect the understanding of the whole appendix including tables 4a through 4f. The TPFf agreed with the steward and recommended retaining the information on pest situations and survey types.

- The steward and the TPFf disagreed with adding an additional Steiner trap recommended by Thailand because there are already three examples of this type of trap in the ISPM. Instead, additional text was added indicating that there are other types of Steiner Traps apart from the ones described in the appendix.

The TPFf sent the recommendations to the steward by email on October 4. The draft ISPM was revised accordingly and sent to the IPPC Secretariat for review at the November 2010 SC meeting.

6. Protocol to determine host status of fruits and vegetables to fruit fly infestations (Tephritidae)

Mr Martin Aluja gave a presentation that he had presented at the recent International Fruit Fly Symposium titled "A review of the state of the art and future perspectives in the study of fruit fly (Diptera: Tephritidae) Host Plant relationships". The presentation stressed the need for awareness of the complexities of host plant species interaction and the underlying mechanisms in order to better understand fruit fly host relationships. A key point of the presentation was the importance of field survey data and semi-natural cage trials under semi-natural conditions to determine fruit fly host status. Further, he stressed the irrelevance of laboratory trials under artificial conditions to determine host status. An article outlining the concepts within the presentation can be found at:

www.annualreviews.org/doi/abs/10.1146/annurev.ento.53.103106.093350.

6.1 Presentation - Hosts of *Bactrocera invadens* in Africa: Determination of host records and the trade consequences of a newly introduced pest to Africa

Mr Jan Venter provided a presentation to the TPF on *Bactrocera invadens* and host records in Africa. *Bactrocera invadens* appeared on the African continent in Kenya in 2003 and has spread rapidly around the equatorial zone into areas including northern Namibia, Mozambique and Botswana. Mr Venter presented climatic modelling based on host records and climatic tolerances. The Panel noted that the modeling is partially based on host records and that distribution ranges may change or expand as more is learned about host preferences. Further, scientific literature including host information is limited which has made the development of pest risk analyses for the pest difficult.

6.2 Introduction and Specification Review

The Steward introduced the draft standard, indicating that it had been developed by adopting the methodology outlined within the scientific paper by Aluja and Mangan (2008), the Asia and Pacific regional standard RSPM 4:2005 *Guidelines for the confirmation of non-host status of fruit and vegetables to Tephritid fruit flies*, and the NAPPO regional standard RSPM 30:2008 *Guidelines for the determination and designation of host status of a fruit or vegetable for fruit flies (Diptera: Tephritidae)*.

6.3 Drafting and finalization

The Panel discussed the issues below during the drafting process:

Fruits and vegetables: The Panel's preference was to refer to fruits and vegetables once in the text and then use the term fruit thereafter throughout the text.

References: The draft document contains several scientific references and clarification was sought whether these should be cited at the beginning of the document, along with ISPMs. The ISPM procedural manual indicated that scientific references may be cited at the beginning of the document if they are referred to within the text.

Definitions: There are several important definitions within the draft document. The panel agreed that these would be defined within the document (as in the case of the potato microtuber ISPM), and the entire draft will be sent to the October 2010 TPG for review, if the TPG agenda permits. The panel will also request the SC to add the definitions to ISPM 5:2009.

Trade facilitation focus: The TPF agreed that host status determinations must also consider historical trade data. The panel emphasized that the intention of this draft standard was to facilitate trade based upon a robust and scientifically valid protocol to determine host status.

Quantification of data: The panel discussed the need to provide guidance on quantification of testing data. The TPF agreed that statistical guidance would not be acceptable within an ISPM and that numerical and statistical values for host testing could be found in various scientific papers. Furthermore, experimental design may also be discussed at a bilateral level.

Title and overall document structure: The panel approved the title with no changes except for the removal of "Specification 50" and the addition of "vegetables". The panel altered the draft document structure to move "Scope" as the first item and the panel incorporated the "Reason for the standard" into the background section.

Scope and purpose: The panel deleted the term 'purpose' to better reflect standard format ISPM format.

Definitions: The TPF considered that the definitions outlined within the draft document have broader applications than just the draft standard and should be forwarded to the TPG for review and inclusion into the glossary.

The TPFf listed the definitions from broadest concept to most specific concept rather than alphabetically. When discussing ‘host status’, the panel agreed to remove reference to ‘fruit’ and insert ‘plant species and cultivar’. In addition, the panel replaced the term ‘condition’ with ‘status’. The TPFf noted that there were various terms that had been used to describe host status and that it was important to standardize these terms for future use. The panel agreed to adopt the terms ‘natural host’, ‘non natural host’ and ‘non host’ from Aluja and Mangan (2008) with modifications agreed upon during the meeting. The panel discussed the concept of a fruit susceptibility gradient from poor host to good host agreed to insert this concept into the standard. The panel also developed a definition of reproductive adults.

Guidelines to verify validity of existing scientific records of host status: The TPFf agreed to insert text within the draft standard noting that some scientific records of host status may be incorrect and that a guide to ensure the accuracy of records should be provided. The panel inserted the guidelines developed by Aluja and Mangan (2008) to ensure the accuracy of historical host records based upon scientific papers as an appendix to the draft standard.

Flow chart discussion: Originally, the draft ISPM contained a flowchart outlining the host determination process in the draft, which was adapted from Aluja and Mangan (2008). The panel agreed to retain the chart with modifications based on discussions in the meeting. The TPFf considered a redesigned flow chart in light of these discussions and redesigned the flow chart taken from Aluja and Mangan (2008) to better represent the content of the draft standard and to simplify the chart. The key concept expressed within the chart was that there are three categories of host status and these can be determined using the protocol outlined below:

A. In cases where after the collection of background information the biological and historical evidence is very clear, no further surveys or bioassays may be required and the fruit can be categorized as a non-host.

B. In cases where after the collection of background information the biological and historical evidence is very clear, no further surveys or bioassays may be required and the fruit can be categorized as a natural host.

C. In cases where some additional information is required, extensive larval and adult surveillance is necessary to determine fruit infestation or non-infestation.

C1. In some cases where no infestation is found after conducting extensive larval and adult surveillance, the fruit may be categorized as non-host

C2. In cases where infestation is found the fruit is categorized as a natural host, although additional surveillance may be necessary to determine whether the fruit is a good or a poor host based on degree of infestation (larvae per fruit and larvae per kilogram of fruit). This is a key element to select the appropriate pest risk management measure.

C3. In other cases where no infestation is found, additional trials may be needed under semi natural conditions to assess whether the insect has the ability to successfully complete its life cycle on the fruit.

C3a. If the target species cannot complete its life cycle it is categorized as a non-host.

C3b. If the target species does complete its life cycle this is categorized as a non-natural host.

Experimental design: The panel changed the term ‘experimental’ to ‘trial’ to indicate that laboratory trials should not be recommended. Rather, field trials under semi natural conditions should be the preferred method to determine host status if field surveys indicated that infestation occurred and further investigation of host status was required.

Natural infestation determined by field surveys: The TPFf agreed that this should be the primary method to determine host status. The panel replaced the term ‘resistance factor’ with ‘host suitability’. The TPFf agreed that the terminology used here should be ‘field surveys’ not ‘field trials’.

Fruit flies: The panel replaced the term ‘quarantine’ with ‘target’ throughout the draft when reference to the fruit fly species of concern was made. The TPFf stressed that, wherever possible, wild populations of the target fruit fly species should be used to conduct the field trials. The exposure time of the fruit to the target fruit fly species was agreed to be from 24 to 72 hours.

Field trials under semi natural conditions: The panel replaced the term ‘glasshouse’ with ‘greenhouse’ to indicate a generic fly-proof structure, but not limited to a ‘glasshouse’.

Laboratory trials: The panel removed the ‘laboratory cage trials’ section and inserted an introductory comment to indicate that the TPFf considered that the determination of host status using laboratory trials of caged flies was not relevant to the determination of host status. The TPFf agreed that punctured fruit should not be part of any of the draft protocol.

Annex and appendixes: The TPFf agreed that Appendix 1 would contain ‘Guidelines for reporting fruit/vegetable infestations in nature’ and Appendix 2 would include additional references.

Requests and recommendations

The panel proposes the following requests and recommendations to the Standards Committee and other technical panels.

The TPFf requests the Standards Committee to:

note that the Draft ISPM *Appendix to ISPM 26: Fruit fly trapping* has been revised and forwarded to the November 2010 SC as requested by the SC and CPM-5 (2010);

consider assigning a higher priority to the Draft ISPM *Protocol to determine host status of fruits and vegetables to fruit fly infestations (Tephritidae)* and prioritising this fruit fly standard for consideration at the May 2011 SC meeting;

note the work programme for the TPFf for 2010 – 2011 (see Appendix 4 to this report);

review and send draft specification *Establishment and maintenance of fruit fly regulated areas in the event of outbreak detection in pest free areas for fruit flies (for inclusion as Annex 1 of ISPM 26)* to member consultation in 2010 so that an ISPM for this standard can be drafted by the panel at the 2011 TPFf meeting;

note that the TPFf recommends a new organization for fruit fly standards and that a discussion paper describing the reasons for this proposal will be forthcoming (see Appendix 6 to this report).

note, together with the IPPC Secretariat, the table with projected completion dates for work of the panel (Appendix 5 to this report);

note that the expert member from Chile, Mr Gonzalez, is resigning from the panel.

approve Mr Gonzalez to remain as steward for the Draft ISPM *Establishment and maintenance of fruit fly regulated areas in the event of outbreak detection in pest free areas for fruit flies (for inclusion as Annex 1 of ISPM 26)*;

approve Mr Gonzalez to attend the next TPFf meeting in 2011 to discuss comments received and to draft the Draft ISPM *Establishment and maintenance of fruit fly regulated areas in the event of outbreak detection in pest free areas for fruit flies (for inclusion as Annex 1 of ISPM 26)*;

note the TPFf recommendation that there is no need to replace Mr Gonzalez or Mr Enkerlin (previous TPFf members), given that the TPFf considers that there is sufficient expertise to continue to develop and provide comments on pending draft standards and specifications; and

- *ask* the Technical Panel on the Glossary (TPG) to consider the following terms and definition for inclusion in the ISPM 5:2009 *Glossary of phytosanitary terms*:

Host status: The condition of a plant species or cultivar in relation to a potential pest.

Natural host: A plant species or cultivar that has been unequivocally reported to be infested under field conditions (i.e., nothing is manipulated) resulting in reproductive adults of the target species.

Non-natural host: A plant species or cultivar that has never been unequivocally reported to be infested under natural field conditions, but for which there exists reliable experimental evidence that it could be infested and produce reproductive adults of the target species under artificial field conditions. Non-natural hosts have previously been referred to as conditional, potential, or artificial hosts.

Non-host: A plant species or cultivar which does not allow a pest to successfully complete its life cycle.

Reproductive adult: An adult male or female that has its gametes fully developed, can exhibit the normal sexual behaviour, perform a copula and eventually produce viable offspring by the mated female.

7. Review of the 2009-2010 work programme

The panel discussed the TPF 2010-11 work plan and projected draft document timelines (see Appendixes 4 and 5 to this report).

8. Final Report

The panel suggested that the next TPF meeting be held on 29 August to 2 September in 2011 in Recife, Brazil. [The date for the meeting has since been changed to 22 – 26 August 2011.] The proposed meeting date would be held the week after a regional fruit fly meeting and some TPF members could attend and contribute to this regional meeting. The IAEA indicated that a proposed change of meeting venue would be agreeable, but that some pre-arranged dates and arrangements will need to be changed.

The members of the TPF and the IPPC Secretariat thanked the Joint FAO/IAEA Division for organizing and funding meeting participants. The panel reviewed and approved the meeting report. The chair thanked the members for their contribution and closed the meeting.

APPENDIX 1: Agenda

Meeting of the Technical Panel on Pest Free Areas and Systems Approaches for Fruit Flies 4-8 October 2010 Agenda

Agenda item	Document
1. Introduction	
Welcome and introduction (J. Hendrichs, L. Erikson and J. Aliaga)	-
Administrative details and local arrangements (R. Pereira)	-
2. Meeting set-up	
Background to TPF, roles and expectations from the meeting (J. Aliaga and L. Erikson)	2010-TPFF-03
Selection of chair and rapporteur (J. Aliaga)	2010-TPFF-01
Review and adoption of the agenda and review of meeting documents (J. Aliaga and R. Pereira)	2010-TPFF-02
3. Decisions of other bodies and activities affecting the TPF	
Updates and decisions from meetings of other bodies relevant to the TPF (Commission on Phytosanitary Measures, Standards Committee, other technical panels, etc.) (J. Aliaga and L. Erikson)	2010-TPFF-04
Subjects discussed during the 2010 TPPT meeting related to the TPF work (A. Jessup)	2010-TPFF-04
4. Fruit Fly ISPMs	
Fruit fly ISPMs overview (R. Pereira)	-
5. Trapping guidelines	
Compiled Member Comments on Appendix to ISPM 26 on fruit fly trapping (J. Aliaga)	2010-TPFF-05
	2010-TPFF-06
6. Protocol to determine host status of fruits to fruit fly (Tephritidae) infestation	
6.1 Host of <i>Bactrocera invadens</i> in Africa: Determination of host records and the trade consequences of a newly introduced pest to Africa (J.H. Venter)	2010-TPFF-07
6.2 Protocol to determine host status of fruits to fruit fly (Tephritidae) infestation (introduction, review of Specification 50) (J. Aliaga and R. Pereira)	2010-TPFF-08
6.3 Drafting of protocol to determine host status of fruits to fruit fly (Tephritidae) infestation an international standard on suppression and eradication procedures for fruit flies (M. Aluja and R. Pereira)	2010-TPFF-08
6.4 Discussion and finalization of draft international standard (M. Aluja and R. Pereira)	2010-TPFF-09, 2010-TPFF-10, 2010-TPFF-11, 2010-TPFF-12
7. Review of 2009-2010 work programme	
Review of 2009 meeting report and work programme (L. Erikson and R. Pereira)	2010-TPFF-13
Fruit fly ISPMs (J. Aliaga and R. Pereira)	2010-TPFF-14
Detailed outline and proposal for fruit fly related ISPMs publication (J. L. Zavala and A. Van Sauer)	2010-TPFF-14

Agenda item	Document
Topics for next TPF meetings (J. Aliaga and J. Gonzalez)	2010-TPFF-15
8. Final report	
Review of priority for next meeting (J. Aliaga)	
Date and venue of the next meeting (J. Aliaga and R. Pereira)	
Work program for 2009-2010 (J. Aliaga)	-
Conclusions and meeting report (J. Aliaga and Rapporteur)	

APPENDIX 2: Documents List

Meeting of the Technical Panel on Pest Free Areas and Systems Approaches for Fruit Flies 4-8 October 2010 Documents List

Document number	Agenda item	Document title	Date posted/ Distributed
2010-TPFF-01	2	Provisional agenda	21-09-2010
2010-TPFF-02	2	Documents list	21-09-2010
2010-TPFF-03	2	Participants list	21-09-2010
2010-TPFF-04	3	Report excerpts and updates from the CPM, standards committee and other technical panels	21-09-2010
2010-TPFF-05	5	Draft Appendix to ISPM26: Fruit Fly Trapping	21-09-2010
2010-TPFF-06	5	Compiled Member Comments on Appendix to ISPM 26 on fruit fly trapping	21-09-2010
2010-TPFF-07	6	Host of <i>Bactrocera invadens</i> in Africa: Determination of host records and the trade consequences of a newly introduced pest to Africa	21-09-2010
2010-TPFF-08	6	Specification No 50: Protocol to determine host status of fruits to fruit fly (Tephritidae) infestation.	21-09-2010
2010-TPFF-09	6	APPPC RSPM No. 4. 2005. Guidelines for the confirmation of non-host status of fruit and vegetables to Tephritid fruit flies.	21-09-2010
2010-TPFF-10	6	NAPPO RSPM No. 30. 2008. Guidelines for the determination and designation of host status of a fruit or vegetable for fruit flies (Diptera: Tephritidae). Ottawa, NAPPO.	21-09-2010
2010-TPFF-11	6	Aluja, M. and R.L. Mangan. 2008. Fruit fly (Diptera: Tephritidae) host status determination: critical conceptual and methodological considerations. Ann. Rev. Entomol. 53: 473-502.	21-09-2010
2010-TPFF-12	6	Discussion Paper: Protocol to determine host status of fruits to fruit fly (Tephritidae) infestation	21-09-2010
2010-TPFF-13	7	Report of 2009 meeting	21-09-2010
2010-TPFF-14	7	IPPC fruit fly standards	21-09-2010
2008-TPFF-15	7	Draft Specification: Establishment and maintenance of fruit fly regulated areas upon outbreak detection in Pest Free Areas	21-09-2010

APPENDIX 3: Participants List

**Meeting of the Technical Panel on
Pest Free Areas and Systems Approaches for Fruit Flies
4-8 October 2010
Participants List**

Participant role	Name, mailing, address, telephone	Email address	Membership confirmed	Term expires
Steward	Ms Julie E. Aliaga International Phytosanitary Standards Program Director USDA APHIS PPQ 4700 River Road, Riverdale, MD 20737. USA Tel: (301) 734 0763	Julie.E.Aliaga@aphis.usda.gov;		-
Member	Ms Mary Bahdousheh Minister of Agriculture Consultant Ministry of Agriculture P.O. Box 2099/961044 Amman, Jordan Tel: (+962) 6 568 6151 Ext. 278 Fax: (+962) 6 568 6310	ppcs@moa.gov.jo; bahdousheh_m@yahoo.com;	2008 (CPM-3)	2013
Member	Mr Robert Duthie Plant health consultant PO. Box 22 Bellingen, NSW, Australia Tel: (+61) 2 66551843 (+61) 422905787	rob.duthie@kalang.com.au;	2008 (CPM-3)	2013
Member	Mr Jaime Gonzalez Division de Asuntos Internacionales Servicio Agrícola y Ganadero Av. Bulnes 140, Santiago, Chile Tel: (+56) 2 345 1587 Fax: (+56) 2 345 1203	jaime.gonzalez@sag.gob.cl;	2008 (CPM-3)	2013
Member	Mr Aldo Malavasi Director Brazilian Medfly Facility Quadra D 13, Lote 15 Juazeiro, Bahia 48.900-00 Brazil Tel: (+55) 74 3612 5399 Fax: (+55) 74 3612 5118	malavasi@moscamed.org.br;	2008 (CPM-3)	2013
Member	Mr Rui Cardoso Pereira Joint FAO/IAEA Division IPCS/NAFA Wagramerstrasse 5 P.O. Box 100 A-1400 Vienna, Austria Tel: (+43) 2600 26077	r.cardoso-pereira@iaea.org;	2008 (CPM-3)	2013
Member	Mr Keng Hong Tan 20, Jalan Tan Jit Seng	tan.kenghong@yahoo.com; khtan@phi-biotech.com;	2008 (CPM-3)	2013

Participant role	Name, mailing, address, telephone	Email address	Membership confirmed	Term expires
	Hillside Tanjong, Bungah 11200 Penang, Malaysia Tel: (+60) 4 890 5737			
Member	Mr Kenji Tsuruta Head, Pest Identification and Diagnostics Division Yokohama Plant Protection Station Ministry of Agriculture, Forestry and Fisheries 1-16-10, Shin-yamashita, Naka- ku, 231-0801 Japan Tel: (+81) 45 622 8940 Fax: (+81) 45 621 7560	tsurutak@pps.maff.go.jp;	2008 (CPM-3)	2013
Member	Ms Alies Van Sauers-Muller National Coordinator Carambola Fruit Fly Program Agricultural Experiment Station Letitia Vriesdelaan 8 Paramaribo, Suriname Tel: (+597) 425 632 or (+597) 886 3814 Fax: (+597) 475 919	cffsur@sr.net; aliesmuller@yahoo.com;	2008 (CPM-3)	2013
Member	Mr Jan Hendrik Venter Assistant Director, Early Warning Systems Directorate Plant Health Department of Agriculture Private Bag 14 Pretoria, 0031, South Africa Tel: (+27) 12 319 6384 Fax: (+27) 12 319 6025	janhendrikv@nda.agric.za; byjhventer@gmail.com;	2008 (CPM-3)	2013
Member	Mr José Luis Zavala López Mediterranean Fruit Fly Programme Sub Director Avenida Central Poniente #14, Altos 1, Edificio Soconusco Col. Centro, Tapachula, Chiapas CP 30700, Mexico Tel: (+52) 962 625 1374 Fax: (+52) 962 625 0802	joseluiszavalalopez@yahoo.com.mx;	2008 (CPM-3)	2013
Invited Expert	Mr Martin Aluja Instituto de Ecología A.C. Carretera Antigua a Coatepec 351, Congregación El Haya, Xalapa 91070, Veracruz, México Tel: (+52) 228 842 1801or 1841 (+52) 228 818 6609	martin.aluja@inecol.edu.mx;		
Host	Mr Jorge Hendrichs	j.hendrichs@iaea.org;		

Participant role	Name, mailing, address, telephone	Email address	Membership confirmed	Term expires
organization representative	Joint FAO/IAEA Division IPCS/NAFA Wagramerstrasse 5 P.O. Box 100 A-1400 Vienna, Austria Tel: (+43) 1 2600 21628			
Host organization representative	Mr Jesus Reyes Flores Joint FAO/IAEA Division IPCS/NAFA Wagramerstrasse 5 P.O. Box 100 A-1400 Vienna, Austria Tel: (+43) 1 2600 26062	j.reyes-flores@iaea.org;		
Host organization representative	Mr Andrew Jessup FAO/IAEA Agriculture & Biotechnology Laboratory IAEA Laboratories Seibersdorf, Austria Tel: (+43) 1 2600 28413	A.jessup@iaea.org;		
IPPC IPPC Secretariat	Ms Lottie Erikson Standards programme IPPC Secretariat Food and Agriculture Organization of the UN Viale delle Terme di Caracalla 00153 Rome, Italy Tel: (+39) 06 5705 5696 Fax: (+39) 06 5705 4819	Lottie.erikson@fao.org;		

APPENDIX 4: Proposed 2010-2011 TPDF Work Programme

Proposed work programme 2010-2011

Technical panel on pest free areas and systems approaches for fruit flies (TPFF)

2010	
October	4-8 October: 2010 meeting 11-15: TP Glossary meeting 25: L. Erikson to e-mail report to TPDF for comments 25: R. Pereira to e-mail draft to TPDF for comments
November	1-5: Nov SC meeting Review of the Specification on <i>Establishment and maintenance of fruit fly regulated areas in the event of outbreak detection in Pest Free Areas</i> Review and approval for adoption during CPM 6 (2011) of <i>Fruit Fly Trapping</i> 8: Comments on report due to IPPC Secretariat 8: Comments on report due to R. Pereira 22: Report finalized and posted on IPP 29: Draft finalized and sent to IPPC Secretariat
December	Potential country consultation of the specification on <i>Establishment and maintenance of fruit fly regulated areas in the event of outbreak detection in Pest Free Areas</i>
2011	
February	28: Finalize the <i>Draft on Phytosanitary Procedures for Fruit Fly (Tephritidae) Management</i> . Sent to IPPC Secretariat Note – capacity building paper Feb1
March	14-18: CPM-6 meeting (potential adoption of draft standard on <i>Fruit Fly Trapping</i>)
May	2-6 SC meeting to review for approval for Member consultation of draft ISPM on <i>Protocol to determine host status of fruits to fruit fly (Tephritidae) infestation</i> 9-13: SC working group meeting considered the comments received on <i>Systems Approaches for Pest Risk Management of Fruit Flies</i>
June	Possible country consultation of draft ISPM on <i>Protocol to determine host status of fruits to fruit fly (Tephritidae) infestation</i> 27-1 Jul: TP on Forest Quarantine meeting 27-1 Jul: TP Diagnostic Protocols meeting
July	25-29: TP Phytosanitary Treatments meeting 31: Draft discussion paper on <i>Establishment and maintenance of fruit fly regulated areas in the event of outbreak detection in Pest Free Areas</i> (for the TPDF meeting) (J. Gonzalez) 31: Discussion papers and other meeting documents will be posted on the IPP website
August	22-26 August: TPDF meeting in Recife (topic: <i>Establishment and maintenance of fruit fly regulated areas in the event of outbreak detection in Pest Free Areas</i>)
October	10-14: TP Glossary meeting 31-4 Nov: Tentative SC meeting

APPENDIX 5: Projected TPFF timelines

**Projected timelines for fruit fly ISPMs currently under development
Technical panel on pest free areas and systems approaches for fruit flies (TPFF)**

Title	Drafting (TPFF)	Approval by SC for Member Consultation	Member Consultation**	Beginning of Re-drafting (Steward)	Review Approval SC7 and SC	Approval CPM
Guidelines for Fruit Fly Trapping					Nov 2010 SC	Mar 2011 (CPM-6)
Systems Approaches for fruit flies				October 2010	May 2011 SC7 Nov 2011 SC	Apr 2012 (CPM-7)
Host status	Oct 2010	May 2011 SC	Jun-Sept 2011	October 2011	May 2012 SC7 Nov 2012 SC	Apr 2013 (CPM-8)
Phytossaitary procedures	Feb 2011	May 2012 SC	Jun-Sept 2012	October 2012	May 2013 SC7 Nov 2013 SC	Apr 2014 (CPM-9)
Regulated areas	Sep 2011	May 2013 SC	Jun-Sept 2013	October 2013	May 2014 SC7 Nov 2014 SC	Apr 2015 (CPM-10)

APPENDIX 6: Organization of the fruit fly ISPMs

Organization of the fruit fly ISPMs

Technical panel on pest free areas and systems approaches for fruit flies (TPFF)

