

ATTACHMENT 1: CONSISTENCY CORRECTIONS IN RELATION TO HARMONIZATION OF FRUIT FLY STANDARDS

(Developed by the TPF, October 2015; approved by SC May 2016 pending CPM-13 decision on reorganization)

ISPM 26 (ESTABLISHMENT OF PEST FREE AREAS FOR FRUIT FLIES (TEPHRITIDAE)) WITH ANNEX 1 (CORRECTIVE ACTION PLANS) AND APPENDIX 2 (FRUIT SAMPLING)

Instructions: Changes to the text are shown in "track change" mode. If paragraphs are to be moved, this is indicated by "Move [para] to before / after [para]".

Para. No.	Proposal for consistency change (underline = addition; strikethrough = deletion)	Explanation for change
[1]	Adoption	
[2]	This standard was adopted by the First Session of the Commission on Phytosanitary Measures in April 2006. Revision of Appendix 1 <u>on Fruit-fly trapping</u> was adopted by the Sixth Session of the Commission on Phytosanitary Measures in March 2011. Annex 2 was adopted by the Ninth Session of the Commission on Phytosanitary Measures in April 2014. Annex 3 was adopted by the Tenth Session of the Commission on Phytosanitary Measures in March 2015.	Deletion of appendix title for consistency (annex titles not given). I suggest you add the adoption dates for Annex 1 and Appendix 2 (adopted with the core standard?).
[3]	INTRODUCTION	
[4]	Scope	
[5]	This standard provides guidelines for the establishment of pest free areas for fruit flies (Tephritidae) of economic importance, and for the maintenance of their pest free status.	Check use of “guidelines” is acceptable in this context: change to “guidance”?
[6]	References	
[7]	IPPC. 1997. International Plant Protection Convention. Rome, IPPC, FAO.	Editorial correction (not italics).

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[8]	The present standard also refers to other International Standards for Phytosanitary Measures (ISPMs) . ISPMs are available on the International Phytosanitary Portal (IPP) at https://www.ippc.int/core-activities/standards-setting/ispms .	Move [8] to before [7] (this standard text should appear at the start of the References section). Edits in line with ISPM template text.
[9]	Definitions	
[10]	Definitions of phytosanitary terms used in this the present standard can be found in ISPM 5 (<i>Glossary of phytosanitary terms</i>).	Edits in line with ISPM template text.
[11]	Outline of Requirements	
[12]	The general requirements for establishing a fruit fly _ pest free area (FF-PFA) include:	Editorial correction.
[13]	- the preparation of a public awareness programme	
[14]	- the management elements of the system (documentation and review systems, recordkeeping)	Editorial correction.
[15]	- supervision activities.	
[16]	The major elements of an the FF-PFA are:	Editorial correction (to match “a” at [12], and for sense: it’s a concept until it’s characterized).
[17]	- the characterization of the FF-PFA	
[18]	- the establishment and maintenance of the FF-PFA.	
[19]	These elements include the surveillance activities of fruit fly trapping (described in Appendix 1) and fruit sampling (described in Appendix 2) , and official control on the movement of regulated articles. —Fruit fly trapping Guidance on surveillance and fruit sampling activities is are provided described in Appendixes 1 and Appendix 2.	Wording here should be consistent with the title of Appendix 1. Editorial changes made to eliminate redundancy and for clarity.

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[20]	Additional elements include: corrective action planning, <u>and</u> suspension, <u>reinstatement (if possible) loss of pest free status and reinstatement revocation of pest free status (if possible)</u> of the FF-PFA. Corrective action plans <u>are</u> described in Annex 1, <u>control measures for an outbreak within a fruit fly-pest free area in Annex 2 and phytosanitary procedures for fruit fly management in Annex 3.</u>	Additional elements have been shifted around to be in the same order as listed in the standard. Additional change of “loss” to “revocation” see [173]. Annex 1 change to match its title. Added mention of Annex 2 and Annex 3 to have reference to these annexes in the core text of the standard. Editorial correction (addition of “and” as “corrective action planning” does not relate to “of pest free status of the FF-PFA”).
[21]	BACKGROUND	
[22]	Fruit flies are a very important group of pests for many countries <u>because of due to</u> their potential to cause damage in fruits and to their potential to restrict access to international markets for plant products that can host fruit flies. The high probability of introduction of fruit flies associated with a wide range of hosts results in restrictions imposed by many importing countries <u>on to</u> accepting fruits from areas in which these pests are established. For these reasons, there is a need for an ISPM that provides specific guidance for the establishment and maintenance of pest free areas for fruit flies.	Editorial corrections (grammatical errors).
[23]	A pest free area is “an area in which a specific pest does not occur as demonstrated by scientific evidence and in which, where appropriate, this condition is being officially maintained” (ISPM 5). Areas initially free from fruit flies may remain naturally free from fruit flies <u>as a result of due to</u> the presence of barriers or climatic conditions, and/or <u>may be</u> maintained free through movement restrictions and related measures (though fruit flies have the potential to establish there), or may be made free by an eradication programme (ISPM 9 (<i>Guidelines for pest eradication programmes</i>)). ISPM 4 (<i>Requirements for the establishment of pest free areas</i>) describes different types of pest free areas and provides general guidance on the establishment of pest free areas. However, a need for additional guidance on <u>the</u> establishment and maintenance of pest free areas specifically for fruit flies <u>(fruit fly pest</u>	Editorial corrections (grammatical errors; abbreviation already defined above).

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	free areas, FF-PFA was recognized. This standard describes additional requirements for <u>the</u> establishment and maintenance of FF-PFAs. The target pests for which this standard was developed include insects of the order Diptera, family Tephritidae, of the genera <i>Anastrepha</i> , <i>Bactrocera</i> , <i>Ceratitis</i> , <i>Dacus</i> , <i>Rhagoletis</i> and <i>Toxotrypana</i> .	
[24]	The establishment and maintenance of an FF-PFA implies that no other phytosanitary measures specific for the target species are required for host commodities within the <u>pest free area</u> PFA .	Editorial correction (PFA has not been defined, FF-PFA has, and in addition, “pest free area/s” spelled out in full is used many times in this standard).
[25]	REQUIREMENTS	It is noted that there is no section on “IMPACTS ON BIODIVERSITY AND THE ENVIRONMENT”
[26]	1. General Requirements	
[27]	The concepts and provisions of ISPM 4 apply to the establishment and maintenance of pest free areas for all pests, including fruit flies, and therefore ISPM 4 should be referred to in conjunction with this standard.	Editorial correction.
[28]	Phytosanitary measures and specific procedures as further described in this standard may be required for the establishment and maintenance of <u>an</u> FF-PFA. The decision to establish an formal FF-PFA may be made based on the technical factors provided in this standard. They include components such as pest biology, size of the area, pest population levels and dispersal pathway, ecological conditions, geographical isolation and availability of methods for pest eradication.	Editorial correction (FF-PFAs are inherently official).
[29]	FF-PFAs may be established in accordance with this ISPM under a variety of different situations. Some of them require the application of the full range of elements provided by this standard; others require only the application of some of these elements.	Editorial correction (redundancy of words “variety” and “different”).
[30]	In areas where the fruit flies concerned are not capable of establishment because of climatic, geographical or other reasons, there should be no records	Editorial correction.

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	of presence and it may be reasonable to conclude that the pest is absent (ISPM 8 (<i>Determination of pest status in an area</i>)). If, however, the fruit flies are detected and can cause economic damage during a season (Article VII.3 of the IPPC), corrective actions should be applied in order to allow the maintenance of an FF-PFA.	
[31]	In areas where the fruit flies are capable of establishment and known to be absent, general surveillance in accordance with— ISPM 8 is normally sufficient for the purpose of delimiting and establishing a pest free area. Where appropriate, import requirements and/or domestic movement restrictions against the introduction of the relevant fruit fly species into the area may be required to maintain the area free from the pest.	Typo correction.
[32]	1.1 Public awareness	
[33]	A public awareness programme is most important in areas where the risk of introduction is higher. An important factor in the establishment and maintenance of FF-PFAs is the support and participation of the public (especially the local community) close to the FF-PFA and individuals who that travel to or through the area, including parties with direct and indirect interests. The public and stakeholders should be informed through different forms of media (written, radio, TV television) of the importance of establishing and maintaining the pest free status of the area, and of avoiding the introduction or re-introduction of potentially infested host material. This may contribute to and improve compliance with the phytosanitary measures for the FF-PFA. The public awareness and phytosanitary education programme should be ongoing and may include information on:	Editorial corrections.
[34]	- permanent or random checkpoints	
[35]	- posting signs at points of entry points points and transit corridors	Editorial correction (Glossary term). In CPM 2017/INF/11 , the EU and its 28 Members States considered that the substitution of the term “entry points” by the Glossary term “points of

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		entry” should not be made, because, according to the General recommendations on use of terms in ISPMs, “point of entry” should not be used in relation to entrance points into a pest free area (PFA) or an area of low pest prevalence (ALPP). The small group set up by CPM-12 (2017) (COSAVE, Australia, Europe and Japan) to develop a compromise on the reorganization on the fruit flies ISPMs agreed with the change proposed by the EU.
[36]	- disposal bins for host material	
[37]	- leaflets or brochures with information on the pest and the pest free area	
[38]	- publications (e.g. print, electronic media)	Editorial correction.
[39]	- systems to regulate fruit movement	
[40]	- non-commercial hosts	
[41]	- security of the traps	
[42]	- penalties for non-compliance, where applicable.	
[43]	1.2 Documentation and record ing-keeping	Editorial correction (remove hyphen).
[44]	The phytosanitary measures used for the establishment and maintenance of <u>an</u> FF-PFA should be adequately documented as part of phytosanitary procedures. They should be reviewed and updated regularly, <u>and</u> include ing corrective actions, if required (see also ISPM 4).	Editorial correction.
[45]	The records of surveys, detections, occurrences or outbreaks and results of other operational procedures should be retained for at least 24 months. Such records should be made available to the <u>national plant protection organization (NPPO)</u> of the importing country on request.	Editorial correction (the abbreviation needs to be defined at first mention).
[46]	1.3 Supervision activities	

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[47]	The FF-PFA programme, including regulatory control, surveillance procedures (e.g. for example trapping, fruit sampling —, see details in Appendix 1 and Appendix 2, respectively) and corrective action planning should comply with officially approved procedures.	Editorial correction.
[48]	Such procedures should include official delegation of responsibility assigned to key personnel, for example:	“official” deleted as the procedures are official (see [47]).
[49]	- a person with defined authority and responsibility to ensure that the systems/ procedures are implemented and maintained appropriately	Editorial correction (to avoid “/”).
[50]	- entomologist(s) with responsibility for the authoritative identification of fruit flies to species level.	
[51]	The effectiveness of the programme should be monitored periodically by the NPPO of the exporting country, through review of documentation and procedures.	
[52]	2. Specific Requirements	
[53]	2.1 Characterization of the FF-PFA	
[54]	The determining characteristics of the FF-PFA include:	
[55]	- the target fruit fly species and its distribution within or adjacent to the area	
[56]	- commercial and non-commercial host species	
[57]	- delimitation of the area (detailed maps or global positioning system (GPS) coordinates showing the boundaries, natural barriers, points-of entry points—points and host area locations, and, where necessary, buffer zones)	Editorial correction (Glossary term). In CPM 2017/INF/11 , the EU and its 28 Members States considered that the substitution of the term “entry points” by the Glossary term “points of entry” should not be made, because, according to the General recommendations on use of terms in ISPMs, “point of entry” should not be used in relation to entrance points into a pest free area (PFA) or an area of low pest prevalence (ALPP). The small group set up by CPM-12 (2017)

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		(COSAVE, Australia, Europe and Japan) to develop a compromise on the reorganization on the fruit flies ISPMs agreed with the change proposed by the EU.
[58]	- climate, for example rainfall, relative humidity, temperature, prevailing wind speed and direction.	
[59]	Further guidance on establishing and describing a <u>pest free area</u> PFA is provided in ISPM 4.	Editorial correction (see explanation at [24]).
[60]	2.2 Establishment of the FF-PFA	
[61]	The following should be developed and implemented <u>when establishing an FF-PFA</u> :	Editorial correction (for clarity).
[62]	- surveillance activities for <u>the</u> establishment of the FF-PFA	Editorial correction.
[63]	- delimitation of the FF-PFA	
[64]	- phytosanitary measures related to movement of host material or regulated articles	
[65]	- pest suppression and eradication techniques, as appropriate.	Editorial correction.
[66]	The establishment of buffer zones may also be necessary (as described in section 2.2.1) and it may be useful to collect additional technical information during the establishment of the FF-PFA.	
[67]	2.2.1 Buffer zone	
[68]	In areas where geographic isolation is not considered adequate to prevent introduction to or reinfestation of a <u>pest free area</u> PFA or where there are no other means of preventing fruit fly movement to the <u>pest free area</u> PFA , a buffer zone should be established. Factors that should be considered in the establishment and effectiveness of a buffer zone include:	Editorial correction (see explanation at [24]).

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[69]	- pest suppression techniques, which may be used to reduce the fruit fly population, including:	Editorial correction.
[70]	· use of selective insecticide-bait	Editorial correction.
[71]	· S spraying	Editorial correction.
[72]	· sterile insect technique	
[73]	· male annihilation technique	
[74]	· biological control	
[75]	· mechanical control, etc.	
[76]	- host availability, cropping systems, natural vegetation	
[77]	- climatic conditions	
[78]	- the geography of the area	
[79]	- <u>the</u> capacity for natural spread through identified pathways	Editorial correction.
[80]	- the ability to implement a system to monitor the effectiveness of buffer zone establishment (e.g. trapping network).	
[81]	2.2.2 Surveillance activities <u>before</u>prior to establishment	Editorial correction.
[82]	A regular survey programme should be established and implemented. Trapping is the preferred option to determine fruit fly absence or presence in an area for lure <u>or</u> /bait- responsive species. However, fruit sampling activities may sometimes be required to complement the trapping programme in cases where trapping is less effective, for example when species are less responsive to specific lures.	Editorial correction (to avoid “/”).

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[83]	<p>BeforePrior to the establishment of a <u>an</u> FF-PFA, surveillance should be undertaken for a period determined by the climatic characteristics of the area, and as technically appropriate, for at least 12 consecutive months in the FF-PFA in all relevant areas of commercial and non-commercial host plants to demonstrate that the pest is not present in the area. There should be no populations detected during the surveillance activities beforeprior to establishment. A single adult detection, depending on its status (in accordance with ISPM 8), may not disqualify an area from subsequent designation as an FF-PFA. For qualifying the area as a pest free area, there should be no detection of an immature specimen, two or more fertile adults, or an inseminated female of the target species during the survey period. There are different trapping and fruit sampling regimes for different fruit fly species. Surveys should be conducted <u>following the guidance in</u> using the guidelines in Appendixes 1 and <u>Appendix</u> 2. These appendices<u>guidelines</u> may be revised as trap, lure and fruit sampling efficiencies improve.</p>	<p>Editorial corrections.</p> <p>“Guidelines” deleted as per SC decision to try to avoid using this term. Further editorial correction (surveys can not be physically conducted using the appendixes).</p>
[84]	2.2.2.1 Trapping procedures	
[85]	This section contains general information on trapping procedures for target fruit fly species. Trapping conditions may vary depending on, for example, the target fruit fly and environmental conditions. More information is provided in Appendix 1. When planning for trapping, the following should be considered.	
[86]	Trap type and lures	In the final formatted ISPM these headings should be in-line headings in italics.
[87]	Several types of traps and lures have been developed over decades to survey fruit fly populations. Fly catches differ depending on the types of lure used. The type of trap chosen for a survey depends on the target fruit fly species and the nature of the attractant. The most widely used traps include Jackson, McPhail, Steiner, open bottom dry trap (OBDT), yellow panel traps, which may use specific attractants (para-pheromone or pheromone lures that are	Editorial corrections.

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	male specific), or food or host odours (liquid protein or dry synthetic <u>protein</u>). Liquid protein is used to catch a wide range of different fruit fly species and <u>to</u> capture both females and males, with a slightly higher percentage of females captured. However, identification of the fruit flies can be difficult because of due to decomposition within the liquid bait. In traps such as McPhail, ethylene glycol may be added to delay decomposition. Dry synthetic protein baits are female biased, capture fewer non-target organisms and, when used in dry traps, may prevent premature decomposition of captured specimens.	
[88]	Trap density	
[89]	Trap density (number of traps per unit area) is a critical factor for effective fruit fly surveys and it should be designed based on target fruit fly species, trap efficiency, cultivation practices, and other biotic and abiotic factors. Density may change depending on the programme phase, with different densities required during the establishment of <u>an</u> FF-PFA and the maintenance phase. Trap density also depends on the risk associated with potential pathways for entry into the designated <u>pest free area</u> PFA .	Editorial correction.
[90]	Trap deployment (determination of the specific location of the traps)	The definition from the heading was added to the first sentence of [91] as the heading was long, and because this enhanced consistency in the headings.
[91]	In <u>an</u> FF-PFA programme, an extensive trapping network should be deployed over the entire area <u>(i.e. determination of the specific location of the traps)</u> . The trapping network layout will depend on the characteristics of the area, host distribution and the biology of the fruit fly of concern. One of the most important features of trap placement is the selection of a proper location and trap site within the host plant. The application of GPS and geographic information systems (GIS) are useful tools for <u>the</u> management of a trapping network.	Editorial corrections.

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[92]	Trap location should take into consideration the presence of the preferred hosts (primary, secondary and occasional hosts) of the target species. Because the pest is associated with maturing fruit, the location, including rotation, of traps should follow the sequence of fruit maturity in host plants. Consideration should be given to commercial management practices in the area where host trees are selected. For example, the regular application of insecticides (and/or other chemicals) to selected host trees may have a false-negative effect on the trapping programme.	Editorial corrections. “the preferred” was deleted as this is not consistent with section 2. <i>Determination of an FF-ALPP of ISPM 30</i> ([49] of Attachment 5), according to which the preferred hosts correspond to the primary hosts.-
[93]	Trap servicing	
[94]	The frequency of trap servicing (maintaining and refreshing the traps) during the period of trapping should depend on the:	
[95]	- longevity of baits (attractant persistency)	
[96]	- retention capacity	
[97]	- rate of catch	
[98]	- season of fruit fly activity	
[99]	- placement of the traps	
[100]	- biology of the species	
[101]	- environmental conditions.	
[102]	Trap inspection (checking the traps for fruit flies)	The definition from the heading was added to the first sentence of [103] as the heading was long, and because this enhanced consistency in the headings.
[103]	The frequency of regular inspection (checking the traps for fruit flies) during the period of trapping should depend on:	Editorial correction (for sense).

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[104]	- expected fruit fly activity (biology of the species)	
[105]	- <u>the</u> response of the target fruit fly in relation to host status <u>(ISPM 37XX)</u> at different times of the year	The panel agreed that a reference to the draft ISPM on host status should be added when (if) adopted to enhance linkages between the FF standards.
[106]	- <u>the</u> relative number of target and non-target fruit flies expected to be caught in a trap	Editorial correction.
[107]	- <u>the</u> type of trap used	Editorial correction.
[108]	- <u>the</u> physical condition of the flies in the trap (and whether they can be identified).	Editorial correction.
[109]	In certain traps, specimens may degrade quickly making identification difficult or impossible unless the traps are checked frequently.	
[110]	Identification capability	
[111]	NPPOs should have in place, or have ready access to, adequate infrastructure and trained personnel to identify detected <u>fruit fly</u> specimens of the target species in an expeditious manner, preferably within 48 hours of trapping . Continuous access to expertise may be necessary during the establishment phase or when implementing corrective actions.	<p>The panel felt that “detected” was a term that created confusion and agreed to delete this term. The panel added “fruit fly” for consistency with the parallel section 2.2.2.2.</p> <p>Editorial correction (for sense). In CPM 2017/INF/11, the EU and its 28 Members States considered that the proposed addition “of trapping” should be withdrawn because fruit fly specimens should preferably be identified within 48 hours “of collecting from the trap” rather than “of trapping”. The small group set up by CPM-12 (2017) (COSAVE, Australia, Europe and Japan) to develop a compromise on the reorganization on the fruit flies ISPMs agreed with the change proposed by the EU.</p>
[112]	2.2.2.2 Fruit sampling procedures	

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[113]	Fruit sampling may be used as a surveillance method in combination with trapping where trapping is less effective. It should be noted that fruit sampling is particularly effective in small-scale delimiting surveys in an outbreak area. However, it is labour-intensive, time-consuming and expensive because of due to the destruction of fruit. It is important that fruit samples should be held in suitable conditions to maintain the viability of all immature stages of fruit fly flies in infested fruit for identification purposes. <u>Further information is provided in Appendix 2.</u>	Cross-reference to Appendix 2 added for clarity.
[114]	Host preference	In the final formatted ISPM these headings should be in-line headings in italics.
[115]	Fruit sampling should take into consideration the presence of primary, secondary and occasional hosts of the target species. Fruit sampling should also take into account the maturity of fruit, apparent signs of infestation in fruit, and commercial practices (e.g. application of insecticides) in the area.	
[116]	Focusing on h High-risk areas	Editorial correction.
[117]	Fruit sampling should be targeted to on areas likely to have presence of infested fruits such as:	Editorial correction.
[118]	- urban areas	
[119]	- abandoned orchards	
[120]	- rejected fruit at packing facilities	
[121]	- fruit markets	
[122]	- sites with a high concentration of primary hosts	
[123]	- points of entry entrance points entrance points in to the FF-PFA, where appropriate.	Editorial correction (Glossary term). In CPM 2017/INF/11 , the EU and its 28 Members States considered that

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		the substitution of the term “entrance points” by the Glossary term “points of entry” should not be made, because, according to the General recommendations on use of terms in ISPMs, “point of entry” should not be used in relation to entrance points into a pest free area (PFA) or an area of low pest prevalence (ALPP). The small group set up by CPM-12 (2017) (COSAVE, Australia, Europe and Japan) to develop a compromise on the reorganization on the fruit flies ISPMs agreed with the change proposed by the EU.
[124]	The sequence of hosts that are likely to be infested by the target fruit fly species in the area should be used as fruit sampling areas.	
[125]	Sample size and selection	
[126]	Factors to be considered include:	
[127]	- the required level of confidence	
[128]	- the availability of primary host material in the field	
[129]	- fruits with symptoms on trees, fallen or rejected fruit (<u>e.g. for example</u> at packing facilities), where appropriate.	Editorial correction.
[130]	Procedures for processing sampled fruit for inspection	
[131]	Fruit samples collected in the field should be brought to a facility for holding, fruit dissection, <u>and</u> pest recovery and identification. Fruit should be labelled, transported and held in a secure manner to avoid mixing fruits from different samples.	Editorial correction (because “pest” refers to “identification” too).
[132]	Identification capability	
[133]	NPPOs should have in place, or have ready access to, adequate infrastructure and trained personnel to identify fruit fly immature stages and emerged adults of the target species in an expeditious manner.	

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[134]	2.2.3 Controls on the movement of regulated articles	
[135]	Movement <u>e</u> Controls <u>on the movement</u> of regulated articles should be implemented to prevent the entry of target pests into the FF-PFA. These controls depend on the assessed risks (after identification of likely pathways and regulated articles) and may include:	Editorial correction (for sense and consistency with the heading above).
[136]	- listing of the target fruit fly species on a quarantine pest list	
[137]	- regulation of the pathways and articles that require control to maintain the FF-PFA	
[138]	- domestic restrictions to control the movement of regulated articles into the FF-PFA	
[139]	- inspection of regulated articles, examination of relevant documentation as appropriate and, where necessary for cases of non-compliance, the application of appropriate phytosanitary measures (e.g. treatment, refusal or destruction).	
[140]	2.2.4 Additional technical information for <u>the</u> establishment of <u>an</u> FF-PFA	Editorial correction <u>s</u> .
[141]	Additional information <u>that</u> may be useful during the establishment phase of FF-PFAs. This includes:	Editorial correction.
[142]	- historical records of detection, biology and population dynamics of the target pest(s), and survey activities for the designated target pest(s) in the FF-PFA	
[143]	- the results of phytosanitary measures taken as part of actions following detections of fruit flies in the FF-PFA	
[144]	- records of the commercial production of host crops in the area, an estimate of non-commercial production and the presence of wild host material	

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[145]	- lists of the other fruit fly species of economic importance that may be present in the FF-PFA.	
[146]	2.2.5 Domestic declaration of pest freedom	
[147]	The NPPO should verify the fruit fly free status of the area (in accordance with ISPM 8) specifically by confirming compliance with the procedures established <u>set up</u> in accordance with this standard (surveillance and controls). The NPPO should declare and notify the establishment of the FF-PFA, as appropriate.	Editorial correction (to match [108] in Annex 1 of ISPM 35).
[148]	In order to be able to verify the fruit fly free status in the area and for <u>the</u> purposes of internal management, the continuing FF-PFA status should be checked after the FF -PFA has been established and any phytosanitary measures for the maintenance of the FF-PFA have been put in place.	Editorial corrections.
[149]	2.3 Maintenance of the FF-PFA	
[150]	In order to maintain the FF-PFA status, the NPPO should continue to monitor the operation of the surveillance and control activities, continuously verifying the pest free status.	Editorial correction (for sense – at this stage it seems the NPPO would start and not continue to monitor; and it reads oddly to operate activities).
[151]	2.3.1 Surveillance for <u>the</u> maintenance of the FF-PFA	Editorial correction.
[152]	After verifying and declaring the FF-PFA, the official surveillance programme should be continued at a level assessed as being necessary for <u>the</u> maintenance of the FF-PFA. Regular technical reports on <u>of</u> the survey activities should be generated (e.g. for example monthly). Requirements for this are essentially the same as for <u>the</u> establishment of the FF-PFA (see section 2.2) but with differences in <u>trap</u> density and trap deployment <u>locations</u> dependent upon the assessed level of risk of introduction of the target species.	Editorial corrections. “Official” deleted because according to ISPM 5 “surveillance” is an official process. To use the same terminology from section 2.2.
[153]	2.3.2 Controls on the movement of regulated articles	

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[154]	These are the same as for <u>the</u> establishment of the FF-PFA (provided in section 2.2.3).	Editorial correction.
[155]	2.3.3 Corrective actions (including response to an outbreak)	
[156]	The NPPO should have <u>plans</u> prepared plans for corrective actions that may be implemented if the target pest(s) is detected in the FF-PFA or in host material from that area (detailed guidance is <u>guidelines are</u> provided in Annex 1, <u>Annex 2 and Annex 3</u>), or if faulty procedures are found. This <u>These</u> plans should include components or systems to cover:	Reference to Annex 2 and Annex 3 added to clarify that further guidance can be found here and to ensure cross-references to the annexes in the core text. Change made to avoid the use of “guidelines”. Change made to plural “plans” to match use at start of paragraph.
[157]	- outbreak declaration, according to criteria in ISPM 8, and notification	
[158]	- delimiting surveillance (trapping and fruit sampling) to determine the infested area under corrective actions	
[159]	- <u>the</u> implementation of control measures	Editorial correction.
[160]	- further surveillance	
[161]	- criteria for the reinstatement of freedom of the area affected by the outbreak	
[162]	- responses to interceptions.	
[163]	A corrective action plan should be initiated as soon as possible and in any case within 72 hours of the detection (of an adult or immature stage of the target pest).	
[164]	2.4 Suspension, reinstatement or loss<u>revocation</u> of an FF-PFA status	Editorial correction; ink amendment, see explanation in [172].
[165]	2.4.1 Suspension	

Para. No.	Proposal for consistency change (underline = addition; strikethrough = deletion)	Explanation for change
[166]	The status of the FF-PFA or the affected part within the FF-PFA should be suspended when an outbreak of the target fruit fly occurs or based on one of the following triggers: detection of an immature specimen of the target fruit fly; <u>;</u> <u>detection of</u> two or more fertile adults as demonstrated by scientific evidence; <u>;</u> or <u>detection of</u> an inseminated female within a defined period and distance. Suspension may also be applied if procedures are found to be faulty (<u>e.g. for example</u> inadequate trapping, host movement controls or treatments).	Editorial corrections (the list structure was not grammatically correct – alternatively, to avoid repeating “detection of”, wording could be “...based on the detection of: an immature...”).
[167]	If the criteria for an outbreak are met, this should result in the implementation of the corrective action plan as specified in this standard and immediate notification to interested importing countries’ NPPOs (see ISPM 17 (<i>Pest reporting</i>)). The whole or part of the FF-PFA may be suspended or revoked. In most cases a suspension radius will delimit the affected part of the FF-PFA. The radius will depend on the biology and ecology of the target fruit fly. The same radius will generally apply for all FF-PFAs for a given target species unless scientific evidence supports any proposed deviation. Where a suspension is put in place, the criteria for lifting the suspension should be made clear. Interested importing countries’ NPPOs should be informed of any change in FF-PFA status.	
[168]	2.4.2 Reinstatement	
[169]	Reinstatement should be based on requirements for establishment with the following conditions:	
[170]	- no further detection of the target pest species for a period determined by the biology of the species and the prevailing environmental conditions ¹ , as confirmed by surveillance, or	Editorial correction in the footnote (it now matches the same footnote in Annex 2 of ISPM 26).
[171]	- in the case of a fault in the procedures, only when the fault has been	

¹ The period starts from the last detection. For some species, no further detection should occur for at least three life cycles; however, the required period should be based on scientific information, including that provided by the surveillance systems in place.

Para. No.	Proposal for consistency change (underline = addition; strikethrough = deletion)	Explanation for change
	corrected.	
[172]	2.4.3 Loss of FF-PFA status<u>Revocation</u>	The panel discussed whether to change “revoked” to “lost”. Several ISPMs use “loss of status” but the panel was concerned that this would not adequately reflect the official measure taken. The panel agreed that “revoke” is the appropriate term to use to clarify that the PFA status is revoked by the NPPO. This also enhances consistency with Section 2.4.1. that uses “revoke”.
[173]	If the control measures are not effective and the pest becomes established in the whole area (the area recognized as pest free), the status of the FF-PFA should be lost <u>revoked</u> . In order to achieve again the FF-PFA, the procedures of establishment and maintenance outlined in this standard should be followed.	
[174]	This annex is a prescriptive part of the standard.	
[175]	ANNEX 1: Guidelines on<u>C</u>orrective action plans	Titled changed to conform with the SC decision not to use “guidelines” in titles of standards and for consistency with analogous title in section 8 of Annex 1 to ISPM 35 (ex-ISPM 30).
[176]	The detection of a single fruit fly (adult or immature <u>stage</u>) of the target species in the FF-PFA should trigger <u>the</u> enforcement of a corrective action plan.	Editorial corrections.
[177]	In case of an outbreak, the objective of the corrective action plan is to ensure eradication of the pest to enable reinstatement of pest status in the affected area into the FF-PFA.	Editorial correction.

Para. No.	Proposal for consistency change (underline = addition; strikethrough = deletion)	Explanation for change
[178]	The corrective action plan should be prepared taking into account the biology of the target fruit fly species, the geography of the FF-PFA area , climatic conditions and host distribution within the area.	Editorial correction (the “A” of PFA is already “area”).
[179]	The elements required for implementation of a corrective action plan include:	
[180]	- <u>a</u> legal framework under which the corrective action plan can be applied	Editorial correction.
[181]	- criteria for the declaration of an outbreak	
[182]	- time scales for the initial response	
[183]	- technical criteria for delimiting trapping, fruit sampling, application of the eradication actions and establishment of regulatory measures	
[184]	- <u>the</u> availability of sufficient operational resources	Editorial correction.
[185]	- identification capability	
[186]	- effective communication within the NPPO and with the NPPO(s) of the importing country(ies), including provision of contact details of all parties involved.	
[187]	<u>1.</u> Actions to apply the corrective action plan	Editorial correction – annex headings are numbered in the same style as core ISPM headings.
[188]	(1) <i>Determination of the pest status of the detection (actionable or non-actionable)</i>	Each line in italics should be a level 2 heading.
[189]	(1.1) If the detection is a transient non-actionable occurrence (ISPM 8), no further action is required.	
[190]	(1.2) If the detection of a target pest may be actionable, a delimiting survey, which includes additional traps, and usually fruit sampling as well as an increased trap inspection rate, should be implemented immediately after the detection to assess whether the detection represents an outbreak, which	

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	will determine necessary responsive actions. If a population is present, this action is also used to determine the size of the affected area.	
[191]	(2) <i>Suspension of FF-PFA status</i>	
[192]	If after detection it is determined that an outbreak has occurred or any of the triggers specified in section 2.4.1 <u>of this standard</u> is reached, the FF-PFA status in the affected area should be suspended. The affected area may be limited to parts of the FF-PFA or may be the whole FF-PFA.	Editorial correction.
[193]	(3) <i>Implementation of control measures in the affected area</i>	
[194]	As per ISPM 9, specific corrective or eradication actions should be implemented immediately in the affected area (s) <u>—</u> and adequately communicated to the community. Eradication actions may include:	Editorial correction (similar wording in [192]).
[195]	- selective insecticide <u>—</u> bait treatments	Editorial correction.
[196]	- sterile fly release	
[197]	- total harvest of fruit in the trees	
[198]	- male annihilation technique	
[199]	- destruction of infested fruit	
[200]	- soil treatment (chemical or physical)	
[201]	- insecticide application.	
[202]	Phytosanitary measures should be immediately enforced for control of movement of regulated articles that can host fruit flies. These measures may include <u>the</u> cancellation of shipments of fruit commodities from the affected area and <u>—</u> as appropriate, fruit disinfection and the operation of road blocks to prevent the movement of infested fruit from the affected area to the rest of the pest free area. Other measures could be adopted if agreed by the	Editorial corrections.

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	importing country, for example, <u> </u> treatment, increased surveys, <u>or</u> supplementary trapping.	
[203]	(4) <i>Criteria for reinstatement of an <u>FF</u>-PFA after an outbreak and actions to be taken</i>	Editorial correction.
[204]	The criteria for determining that eradication has been successful are specified in section 2.4.2 <u>of this standard</u> and should be included in the corrective action plan for the target fruit fly. The time period will depend on the biology of the species and the prevailing environmental conditions. Once the criteria have been fulfilled the following actions should be taken:	Editorial correction.
[205]	- notification of NPPOs of importing countries	
[206]	- reinstatement of normal surveillance levels	
[207]	- reinstatement of the FF-PFA.	
[208]	(5) <i>Notification of relevant agencies</i>	
[209]	Relevant NPPOs and other agencies should be kept informed of any change in FF-PFA status, as appropriate, and IPPC pest reporting obligations observed (ISPM 17).	Editorial correction.
[210]	This appendix is for reference purposes only and is not a prescriptive part of the standard.	
[211]	APPENDIX 2: Guidelines for Ffruit sampling	Title simplified in accordance with the SC recommendation on not using the term “guidelines” and to harmonize with the title of Appendix 1.
[212]	Information about <u>fruit</u> sampling (<i>Fruit sampling</i> <i>Fruit Sampling Guidelines for Area-Wide Fruit Fly Programmes</i> for fruit flies) is available in the following publication of the <u>Food and Agriculture Organization of the United Nations (FAO) and the International Atomic Energy Agency (IAEA) (in English only) available at: references listed below. The list is not exhaustive.</u> <u>https://www.iaea.org/about/insect-pest-control-section</u> 	

Para. No.	Proposal for consistency change (underline = addition; strikethrough = deletion)	Explanation for change
	<p>naweb.iaea.org/nafa/ipc/public/FruitSampling.pdfXxx</p> <p><u>IPPC Diagnostic protocols adopted as annexes to ISPM 27 (<i>Diagnostic protocols for regulated pests</i>) may be useful tools to diagnose the larvae of fruit fly specimens.</u></p>	<p>The publication was published in 2017.</p> <p>The panel felt it would be important to link this appendix to the IPPC diagnostic protocols to ensure users of the fruit sampling guidelines would be prompted to use the internationally harmonized diagnostic protocols. Further editorial corrections made.</p>
[213]	Enkerlin, W.R., Lopez, L. & Celedonio, H. 1996. Increased accuracy in discrimination between captured wild unmarked and released dyed-marked adults in fruit fly (Diptera: Tephritidae) sterile release programs. <i>Journal of Economic Entomology</i>, 89(4): 946-949.	
[214]	Enkerlin W. & Reyes, J. 1984. Evaluacion de un sistema de muestreo de frutos para la deteccion de <i>Ceratitis capitata</i> (Wiedemann). 11 Congreso Nacional de Manejo Integrado de Plagas. Asociacion Guatemalteca de Manejo Integrado de Plagas (AGMIP). Ciudad Guatemala, Guatemala, Centro America.	
[215]	Programa Moseamed. 1990. <i>Manual de Operaciones de Campo</i>. Talleres Graficos de la Nacion. Gobierno de Mexico. SAGAR/DGSV.	
[216]	Programa regional Moseamed. 2003. <i>Manual del sistema de detección por muestreo de la mosca del mediterráneo</i>. 26 pp.	
[217]	Shukla, R.P. & Prasad, U.G. 1985. Population fluctuations of the Oriental fruit fly, <i>Dacus dorsalis</i> (Hendel) in relation to hosts and abiotic factors. <i>Tropical Pest Management</i>, 31(4): 273-275.	
[218]	Tan, K.H. & Serit, M. 1994. Adult population dynamics of <i>Bactrocera dorsalis</i> (Diptera: Tephritidae) in relation to host phenology and weather in two villages of Penang Island, Malaysia. <i>Environmental Entomology</i>, 23(2): 267-275.	

Para. No.	Proposal for consistency change (underline = addition; strikethrough = deletion)	Explanation for change
[219]	Wong, T.Y., Nishimoto, J.I. & Mochizuki, N. 1983. Infestation patterns of Mediterranean fruit fly and the Oriental fruit fly (Diptera: Tephritidae) in the Kula area of Maui, Hawaii. <i>Environmental Entomology</i>, 12(4): 1031-1039. IV Chemical control.	