REPORT

Standards Committee

May, 2016

Rome, Italy
9-13 May 2016

Food and Agriculture Organization of the United Nations

CONTENTS

LIST OF APPENDIXES

1. Opening of the meeting

1.1 Welcome by the IPPC Secretariat

[1] The IPPC Secretary, Mr Jingyuan XIA, welcomed the Standards Committee (SC) members. He highlighted a number of achievements from the Eleventh Session of the Commission on Phytosanitary Measures (CPM-11, 2016), pointing out the high participation of contracting parties and regional plant protection organizations, and the important milestone event that CPM adopted five IPPC themes for 2016-2020, each year with a specified theme. He also highlighted the nine standards adopted at CPM-11 (2016), attesting to the success of standard setting, but stressed that the future holds many challenges.

[2] He suggested that the standard setting towards 2020 and beyond should put more emphasis on forestry, trade facilitation and cooperation between standard setting and implementation. He also expressed his deep appreciation for the SC's crucial work to support the development of standards highlighting the unprecedented high number of standards currently on the work programme. He encouraged the SC members to fully participate in the meeting and inter-sessional activities.

[3] He assured the SC that he was taking steps to ensure the Secretariat has sufficient sustainable resources to deliver the work programme as agreed by CPM. In this respect, he confirmed that he would be implementing an action plan for the Enhancement Evaluation to the IPPC Secretariat by reshaping the organization structure, regrouping responsibilities and renewing operational mechanisms.

[4] He concluded his opening speech emphasizing the importance of the 4th IPPC Seminar on Plant health standards and food security to be held during the SC meeting week. He thanked the SC members who had contributed by preparing presentations. The seminar would be an important event as it would demonstrate how IPPC standards clearly link to the United Nations Sustainable Development Goal 2 (End of Hunger), and help to enhance food security globally.

[5] The SC Chairperson thanked the Secretary for his important points, welcomed the SC members and the observers to Rome and opened the meeting.

[6] The IPPC Standards Officer also welcomed all and in particular the new Standards Committee (SC) members Mr Rajesh RAMARATHAM (Canada) and Mr Moses Adegboyega ADEWUMI (Nigeria), as well as the returning member Mr John HEDLEY (New Zealand).

[7] He acknowledged the absence of Ms Nadia HADJERES (Algeria), Mr HERMAWAN (Indonesia), Ms Maryam Jalili MOGHADAM (Iran), Mr Pere KOKOA (Papua New Guinea) and Mr Piotr WLODARCZYK (Poland), and noted that four observers attended the meeting.

[8] He then introduced the Standard Setting staff[1] and thanked the FAO/International Atomic Energy Agency (IAEA) joint division, France, Canada, New Zealand and USA and for their in-kind contributions. He particularly highlighted the crucial contribution from France in the form of a full time staff resource for the past four years renewed for a consecutive fifth year, which helped ensure the delivery of the Standard setting work programme.

1.2 Election of the Rapporteur

[9] The SC elected Ms Laurence BOUHOT-DELDUC (France) as Rapporteur.

1.3 Adoption of the Agenda

[10] The SC adopted the Agenda after adding a point under "any other business" (Appendix 1).

[1] Link to standard setting staff

2. Administrative Matters

[11] The IPPC Secretariat (hereafter "Secretariat") introduced the Documents list (Appendix 2) and the Participants list (Appendix 3). The participants were reminded to update any changes to their contact information on the International Phytosanitary Portal (IPP – www.ippc.int).

[12] The Secretariat provided a document on local information[2] and invited participants to notify the Secretariat of any information that required updating or was missing.

3. Updates

3.1 Items arising from governance bodies

[13] The Secretariat introduced the papers[3] highlighting items of particular importance to the SC.

[14] **Framework for standards and implementation**. The Secretariat recalled that the CPM-11 (2016) adopted the Framework for standards and implementation (hereafter "Framework"), and that it would be a standing agenda item for the SC in its May meetings to review the Framework. The SC reviewed and updated the Framework with the new topics added by CPM-11 to the *List of topics for IPPC standards* (see also section 6 of this report). The SC did not include "reorganization of the fruit fly standards" (2015-012) as a separate topic in the Framework because this work was not an additional standard but applied to already adopted standards.

[15] The SC had a conceptual discussion about commodity standards and what they should cover and where to include them within the Framework, in response to the CPM pointing out that there were no commodity standards listed as gaps. The following suggestions were made:

- The SC should consider developing criteria for determining which proposals for commodity standards should be included in the Framework. The criteria should include elements of global concern, for instance food security, and consideration of the level of pest risks.
- Whether the SC should try to work, as a first step, on developing a document, or try out developing a standard for one specific commodity, to agree on what the content of a commodity standard should be, based on which it should be easier to determine which topics to include in the Framework.
- Efforts should be made to identify the actual phytosanitary issues of global concern and how best to address them (standard, treatment, implementation tool, or other).
- Whether only some commodities would need internationally harmonized standards for their international movement because for many commodities there may be sufficient guidance to address the pest risk.
- The SC should encourage countries to share information about their bilateral arrangements for commodities including the treatments used.

[16] The SC Chairperson noted that these points would be discussed further in the SC November 2016 meeting, but suggested that it would also be valuable to examine more in detail what countries wish to achieve with commodity standards. The SC asked that the small SC- Implementation and Review Support System (IRSS) group (hereafter "small SC-IRSS group", see also section 3.3 of this report) prepare a proposal for an IRSS survey on commodity standards; the outcomes of which would help the SC determine the criteria for this type of topic.

[17] The SC discussed the need for an SC member to lead the work on the Framework and agreed to assign Mr Rajesh RAMARATHAM (Canada) as a champion.

[18] **Adjustments to the Standard setting procedure.** The Secretariat highlighted the main changes to the Standard setting procedure namely that only contracting parties and RPPOs may submit topics in

[2] Link to local information

[3] 11_SC_2016_May; 21_SC_2016_May

response to a call; all consultation periods for standards are now for 90 days, and; there is more emphasis on solving objections before the CPM session. In addition, the Secretariat had decided to launch all consultation periods (draft specifications, ISPMs and Notification periods for diagnostic protocols), at the same time in an effort to streamline processes.

[19] **SC representation in the Focus Group on establishing an Implementation Committee.** The SC suggested that Mr Jan Bart ROSSEL (SC Chairperson) represent the SC in the Focus group meeting scheduled for 18-22 July 2016, Paris, France.

[20] **SC representation in the Steering group for the International Year of Plant Health (IYPH) 2020**. The SC suggested that Ms Shaza OMAR (Egypt) represent the SC in the IYPH.

[21] The SC:

(1) *reviewed* and *amended* the Framework for standards and implementation (Appendix 4) and recommended the revisions to the SPG.

(2) *agreed* that the small SC-IRSS group discuss by email and prepare a proposal for an IRSS study on commodity standards (see also section 3.3 of this report).

(3) *assigned* Mr Rajesh RAMARATHAM (Canada) as the SC champion for the Framework for standards and implementation.

(4) *noted* that, in their November 2016 meeting, the SC will be invited to review and adapt the current process to allow for a combined call for topics for standards and tools for implementation to be made, including any changes to the assessment criteria needed.

(5) *noted* that, in their November 2016 meeting, the SC will be invited to reconsider the topic on PRA for Commodities (2015-002), as well as other proposals for commodity standards which were made during the 2015 call for topics, with further input from the CP who submitted the topic.

(6) *agreed* Mr Jan Bart ROSSEL (Australia, SC Chairperson) should represent the SC in the Focus group on establishing an Implementation Committee (Paris, 18-22 July 2016).

(7) *agreed* Ms Shaza OMAR (Egypt) should represent the SC in the Steering Committee on the International Year of Plant Health.

3.2 Interactions between subsidiary bodies

[22] The SC Chairperson summarized the main points from the paper on the relationship between the SC and the CDC[4]. A small SC group met to revise the paper and the SC reviewed and revised the proposal agreeing that it should be forwarded to the Focus group on establishing an Implementation Committee.

[23] The SC:

(8) *agreed* to submit a paper on the relationship between the SC and the Implementation Committee on how the new IPPC subsidiary body on implementation could operate and interact with the SC in achieving their respective work programmes to the Focus group on establishing an Implementation Committee (by 31 May 2016 to the Secretariat: ippc@fao.org).

(9) *invited* the CDC to work with the SC on identifying and developing the terms of reference and objectives of a joint SC/CDC meeting for discussion at their respective meetings for presentation to CPM.

(10) *requested* the Secretariat to identify a suitable time for the joint meeting of the SC and CDC to meet, once these Terms of reference have been discussed and agreed upon by CPM.

[24] **National Reporting Obligations Advisory Group (NROAG)**. The Secretariat introduced a paper from the NROAG[5] in which proposals for closer collaboration between the SC and NROAG were presented,

[4] 23_SC_2016_May

[5] 13_SC_2016_May

particularly with regards providing feedback on the quality of ISPMs and the identification of implementation challenges.

[25] As to the requests that the SC consider adding topics to the *List of topics for IPPC standards* for revisions of ISPM 13 (*Guidelines for the notification of non-compliance and emergency action*), ISPM 17 (*Pest reporting*) and ISPM 19 (*Guidelines on lists of regulated pests*), the SC Chairperson recalled that the SC may propose addition of topics in exceptional circumstances, in response to a specific need. He encouraged that members of the NROAG work with contracting parties to encourage them to submit topics in the biennial call for topics. Other SC members agreed with this, as proposals for a revision of a standard should be accompanied with a specification for the SC to fully understand the issues.

[26] One member suggested the SC review the issues identified on various occasions by contracting parties and decide which to prioritize for revision. In the meantime, the issues identified with adopted standards would be archived in the "error tracking database" the Secretariat is continuously updating, to be used when an ISPM is revised.

[27] The SC considered establishing a more regular/formal process to identify which existing standards and when they need review, and would include it in the paper for consideration at the Focus group on establishing an Implementation Committee (see section 3.1 of this report).

[28] The SC:

(11) *asked* the Secretariat to archive the issues identified by the NROAG in the Secretariat's "error tracking database".

(12) *encouraged* the NROAG members to encourage contracting parties to submit topics for revision of standards identified by the NRO through the normal standard setting process in response to the Call for topics.

3.3 Briefings from IPPC Secretariat

[29] **Standard Setting Unit**. The Secretariat informed the SC of the communication efforts planned for 2016 and highlighted a number of fact sheets and brochures published or in the pipeline, for instance on the Standard setting process published or in the pipeline. He pointed out that a number of articles featuring relevant standard setting issues had been published both on the IPPC's and the FAO's website.

[30] He also thanked the following organization and countries for having hosted standard setting meetings in 2015: IAEA/FAO joint division (October 2015 meeting of the Technical Panel on Pest Free Areas and Systems Approaches for Fruit Flies); Japan (September 2015 meeting of the Technical Panel on Phytosanitary Treatments); China (June 2015 meeting of the Technical Panel for Diagnostic Protocols), and; New Zealand (Expert Working Group on the Revision of ISPM 6).

[31] Lastly, he thanked the Joint FAO/IAEA division for funding the research on fruit fly populations to support the development of the phytosanitary treatments.

[32] Translation adjustments. The Secretariat introduced the paper[6] summarizing the work carried out to align language versions of ISPMs.

[33] Specifically, ISPM 5 (*Glossary of phytosanitary terms)* in Spanish and Chinese had been adjusted to correct translation issues and appropriate use of Glossary terminology. The Language review groups for the languages in question and FAO Translation services had worked together to review and agree on the changes.

[34] Also, following the approval of the procedure to revoke standards, agreed by CPM-10 (2015), the Secretariat had incorporated ink amendments to the English, French and Spanish versions of all currently adopted ISPMs. Additionally, the Secretariat translated and incorporated ink amendments previously noted by CPM in English into the French and Spanish versions, to align them with the English versions.

[6] 14_SC_2016_May

Minor additional translation adjustments were introduced in this exercise when evident errors were identified, for instance in the translation of Glossary terms. For transparency purposes, the translations of the ink amendment were posted publicly on the IPP together with an overview of all the ink amendments proposed, approved or noted[7].

[35] CPM-11 (2016) had noted and expressed appreciation for this work.

[36] The Secretariat further pointed out that the LRG for Spanish also proposed changes in the translation of "should" as per the CPM-1 (2006) decision, but that this proposal was not incorporated. The reason for this choice was that the SC in November 2012 did not approve a TPG proposal to adjust the translation of "should" in Spanish in all previously adopted ISPMs but asked that the adjustments were archived for future revisions[8], and because the review exercise only concerned the paragraphs containing English ink amendments wherefore the Secretariat would not have been able to ensure consistent translation of "should" throughout the standards. For this reason the level of obligation varies between the language versions, although CPM-1 (2006) asked that the translation of "should, shall, must and may" was correctly applied to all ISPMs [9].

[37] The SC:

(13) *noted* that Spanish and Chinese versions of ISPM 5 have been adjusted to ensure correct use of Glossary terms and alignment with the English version, published following CPM-11 (2016).

(14) *noted* that the IPPC Secretariat has completed the revoking process for English, French and Spanish, and that the French and Spanish versions also include ink amendments previously noted by CPM in English.

(15) *supported* a full review of the Spanish and French versions of all currently adopted ISPMs to ensure that the CPM-1 (2006) decision on the translation of "should, shall, must and may" is correctly applied, dependent on extra-budgetary resources.

(16) *noted* that work has commenced to revoke and adjust Arabic versions of currently adopted ISPMs, but that this is a resource intensive task and that further extra-budgetary resources should be identified to finalize the work in Arabic and to carry out the same work for Chinese and Russian.

[38] **Implementation Facilitation Unit**. The Secretariat introduced the paper[10] emphasizing the areas of work where collaboration from the SC was needed to ensure the cross-cutting nature of the IRSS project and its liaison function across subsidiary bodies and Secretariat units is maintained. He highlighted that the IRSS was preparing for a proposed third project cycle (2017-2020).

[39] The Secretariat informed that a virtual meeting of the Chairpersons of subsidiary bodies and the Secretariat would be convened in September 2016 to prepare the next triennial review.

[40] The SC also noted that the IRSS team would conduct the second General IPPC Survey from September to October 2016.

[41] The SC input was expected in this process, namely to:

- Consider the SC work programme and identify how the IRSS could assist the SC in relation to its strategic priorities over the next 3 years.
- Consider how this input can be provided to the IRSS in between SC sessions (preferably before 30 September 2016).

[7] Link to overview of ink amendments proposed, approved or noted, together with the translations of the ink amendments.

[8] See SC 2012-11 report, paragraph 129: Table C of SC_2012_Nov_19 was not approved.

[9] The CPM-1 (2006) report, paragraph 87, decision 8, reads: "*Agreed* that already adopted ISPMs be reviewed for the use of the terms "must", "shall", "should" and "may", and for adjustment of their translations.

[10] 16_SC_2016_May

[42] The SC discussed the matter and highlighted that it would be opportune that the IRSS programme considered issues identified through the Framework for standards and implementation.

[43] The SC:

(17) *invited* SC members to submit ideas for the new IRSS project cycle by 30 June 2016 to the Secretariat (ippc@fao.org).

(18) *agreed* that a small SC group ("small SC-IRSS group") be set up (Lead: Mr Rajesh RAMARATHAM, Mr Lifeng WU, Ezequiel FERRO, Jan Bart ROSSEL) to develop proposals for the new IRSS project cycle (paper to be sent to the Secretariat (ippc@fao.org) by 31 July 2016 for presentation to SC e-decision).

(19) r*equested* the Secretariat to ensure that the Framework for standards and implementation be used in identifying needs that the IRSS could investigate further.

[44] **2016 IPPC Regional Workshops.** The Secretariat introduced the paper[11] outlining tentative dates and venues for the 2016 IPPC Regional Workshops and highlighted the importance of having SC members attending regional workshops.

[45] The SC:

(20) *agreed* that the following SC members would attend 2016 IPPC Regional Workshops:

Ms Esther KIMANI (Kenya): Africa

Ms Walaikorn RATTANADECHAKUL (Thailand): Asia

Mr Ezequiel FERRO (Argentina): Caribbean

Mr Nico HORN (The Netherlands): Central and Eastern Europe and Central Asia

Ms Ana Lilia MONTEALEGRE LARA (Mexico): Latin America

Ms Shaza OMAR (Egypt): Near East and North Africa

Mr John HEDLEY (New Zealand): Southwest Pacific

[46] **General update from IPPC Secretariat**. The Secretariat provided a general update on the IPPC Secretariat activities highlighting the successful progress on ePhyto and efforts to mobilize additional resources.

4. Draft ISPMs for recommendation to CPM (From November 2015 SC meeting)

4.1. Draft ISPM on *International movement of wood* (2006-029), Priority 2

[47] As the Steward was not able to attend the meeting, the Standards Officer introduced the draft ISPM and briefly outlined the background of this draft and the major changes since the SC last reviewed it[12]. He recalled that the formal objection raised on the adoption of this draft at CPM-10 (2015) had been considered by the SC May 2015, and that a revised draft standard, with input from several SC members, had been presented and discussed at the SC November 2015 meeting. The current draft had been revised in accordance with the discussions in 2015 and in consultation with the Technical Panel for Forest Quarantine (TPFQ) in their February 2016 meeting. He explained the considerations and changes proposed by the TPFQ in their February 2016 meeting, specifically that:

- extended description of sawn wood was kept as the TPFQ felt the Glossary definition was not detailed enough.
- figures were added to supplement some descriptions as this was felt to be helpful.
- some text had been added to further describe bark removal.

[11] 25_SC_2016_May

[12] 2006-029; 04_SC_2016_May; Link to 2016-02 TPFQ report

- fresh frass was not considered an indicator of pests but it was agreed that finding fresh frass should prompt further investigation for live pests.
- all treatments had been moved to an appendix since none of the treatments presented had been approved in ISPM 28 *(Phytosanitary treatments for regulated pests)* for wood. Although some of the treatments were ISPM 15 *(Regulation of wood packaging material in international trade)* treatments, they were not approved for the broader category of wood. Therefore, the TPFQ felt they should not be part of the standard but rather be presented in a non-prescriptive appendix.

[48] The SC discussed the following substantial issues.

[49] One SC member felt that there was still a lack of requirements for an appropriate basis for international harmonization. Without specific requirements it should not be a standard, but he noted that the document was very useful as complimentary guidance. Another SC member pointed out that there are several commodity class type standards in progress and that the SC should consider designing a new type of guidance, instead of standards, to facilitate the adoption of these documents by the CPM.

[50] Other SC members supported that the document remain as a standard, stressing that a decision on the level of requirements in commodity class standards had been decided by CPM-11 (2016), namely that standards with broader scopes would have equally broader requirements. They felt that the current discussions could be considered to counter the CPM-11 (2016) decision and were a step backwards. Another member also pointed out that should this document not be considered as a draft standard, there should be a review of existing commodity or commodity class standards (e.g. ISPM 33 *(Pest free potato (*Solanum *spp.) micropropagative material and minitubers for international trade)* and ISPM 36 *(Integrated measures for plants for planting)* because these should then also be "reclassified".

[51] The Secretariat recalled that, in principle, any other type of guidance, other than standards and explanatory documents, would not be under the SC remit and that this topic had been included on the SC work programme because the CPM had agreed that a standard should be developed. Should the SC therefore feel the content was not sufficient for it to go forward as a standard, a recommendation to remove the topic from the *List of topics for IPPC standards* should be recommended to the CPM.

[52] In this connection, one SC member suggested that the SC should be directly involved in developing other guidance material considering the significant technical expertise of the expert drafting group and SC members. However, the Secretariat explained that the CPM Bureau and the CPM had previously decided that the SC be delegated only with the responsibility of developing standards. SC members may be included in the Phytosanitary expert roster to provide input to capacity development guidance on an individual basis.

[53] The SC agreed to proceed with submitting the draft for a third consultation. The SC agreed that, based on the consultation comments, the SC November 2016 would consider carefully if the document should still be put forward as a standard or if guidance should be sought from CPM as to the way forward, and that the draft would be considered in the wider discussion on the commodity standards to be addressed by the SC.

[54] The SC reviewed the standard and discussed the following issues.

[55] **Requirements.** One SC member suggested to move most of the section on pest risks related to wood commodities to an annex for the section itself to be more general. Other SC members did not support this as they felt that the text was essential.

[56] The SC agreed that the table should have a different layout for clarity issues.

[57] **Phytosanitary measures**. The SC modified the wording to clarify that the phytosanitary measures in this section are options that NPPOs may choose from, and deleted the text stating that the measures were "not listed in a specific order".

[58] **Treatments**. The SC agreed to add some text to clarify that irradiation treatments may result in live but not viable pests and that this should not result in non-compliance. It was noted that there are currently no IPPC adopted irradiation treatments for wood but there may be such phytosanitary treatments agreed on a bilateral basis and that some countries may use this as an option.

[59] **Inspection and testing**. The SC agreed to reduce the first paragraph as there was some repetition between this paragraph and the following.

[60] **Systems approaches**. The SC discussed the examples for measures in a systems approach and made some minor modifications to ensure there was no confusion as to which measures may practically be applied in a systems approach.

[61] **Appendix 2 – Treatments; Fumigation**. One Observer suggested that the name of the fumigants that have a penetration depth limited to about 10 cm from the wood surface be mentioned in the draft standard. An SC member explained that this paragraph related to Methyl Bromide fumigation and the technical specificities were described in ISPM 15.

[62] **Appendix 2 – Treatments; Irradiation.** One SC member suggested an introductory sentence as to what type of wood commodities this treatment be used for should be added to this paragraph. The SC suggested that TPFQ members should provide input on this through their IPPC Official contact points during consultation.

[63] **Potential implementation issues.** The SC discussed whether the TPFQ would be in a position to advise the SC on potential implementation issues, or if a specific note could be added during consultation to that effect for CPs, RPPOs, etc. who comment on the standard so they may consider and identify implementation issues. One SC member felt that the TPFQ may not have the necessary knowledge to address these issues as it is the responsibility of NPPOs to implement standards, but other SC members believed that their technical expertise would enable them to provide input on this. The SC supported the idea of soliciting comments on implementation issues from TPFQ and during the consultation period. The SC agreed that the latter should be included for all standards. This would ensure that global implementation issues be gathered and also facilitate sharing the issues with the Implementation Facilitation Unit through the Online Comment System.

[64] The SC:

(21) *approved* the draft ISPM *International movement of wood* (2006-029) as modified in this meeting for submission to a third Consultation (Appendix 5) with the intent of presenting a modified draft ISPM to the SC November 2016 meeting.

(22) *asked* the TPFQ consider any potential implementation issues with the draft ISPM *International movement of wood* (2006-029) and report back to the SC November 2016 meeting.

(23) *agreed* that comments on implementation issues should be requested for all standards that are submitted for consultation.

5. Draft ISPMs from expert drafting groups (EWG/TP) for the First consultation

[65] All draft ISPMs approved by the SC for First consultation are listed in Appendix 6.

5.1. 2016 Amendments to ISPM 5 (*Glossary of phytosanitary terms*) (1994-001)

[66] The Steward for the Technical Panel for the Glossary (TPG) introduced the draft 2016 Amendments to ISPM 5[13].

[13] 1994-001

[67] **Addition of "exclusion (of a pest)"** (2010-008). One SC member reiterated his previous position in favour of the narrow understanding of "phytosanitary measure"[14]. The SC did not reopen the discussion but noted the concerns. The SC made no modifications to the TPG proposal for the addition.

[68] **Revision of "quarantine"** (2015-002). Some SC members proposed to move "pests or beneficial organisms" after "regulated articles" so that observation and research could also be carried out on regulated articles. Other SC members disagreed as with such a change it would not be clear that normally pests or beneficial organisms are kept in quarantine only for observation and research.

[69] Other SC members wished to delete mention of "observation or research" as they felt that quarantine would not be applicable to those situations and thus was outside of the mandate of the NPPOs.

[70] Other SC members disagreed and stressed that research activities on beneficial organisms or pests are done in quarantine stations in some countries.

[71] The SC also discussed if "beneficial organisms" should be deleted from the proposed revision because some SC members believed quarantine should be restricted to regulated articles only. They also referred to the definition of "regulated article", which includes "any other organism", suggesting that "beneficial organisms" could be considered included in this definition.

[72] However, other SC members pointed out that regulated articles were items that could harbor pests, but pests and beneficial organisms are not "regulated articles" and can be kept in quarantine for the purpose of observation or research, for instance according to ISPM 3 *(Guidelines for the export, shipment, import and release of biological control agents and other beneficial organisms)*. The TPG had suggested dividing the concepts, so as not to restrict the definition too much, and to account for the main reasons and purposes of quarantine. It was also explained that the inclusion of "beneficial organisms" was a reflection of Art. VII of the IPPC where they were dealt with in relation to phytosanitary import requirements.

[73] The SC finally agreed not to make any modifications to the TPG proposal for the revision of "quarantine".

[74] **Revision of "test"** (2015-003) and **"visual examination"** (2013-010). The SC did not have any modifications to this proposal.

[75] **Deletion of pre-clearance** (2013-016). One SC member felt that it was premature to delete the term while the draft appendix on Arrangements for verification of compliance of consignments by the importing country in the exporting country (2005-003) to ISPM 20 *(Guidelines for a phytosanitary import regulatory system)* was still under development because the concept could be clarified in the appendix, which would allow for the term to be revised at that stage.

[76] Other SC members strongly supported the deletion stressing that the SC had not been able to agree to using the term in the appendix because the understanding of "pre-clearance" is different depending on the country. Also, it was stressed that the current definition of "pre-clearance" was incorrect as it indicates that phytosanitary certification can be performed by or under the regular supervision of the national plant protection organization of the country of destination. At this moment, they did not believe it was possible to revise the definition to adequately reflect all the various understandings of the term. The term "pre-clearance" is only used three times in ISPM 20. They also suggested that if in the future there would be an internationally harmonized concept agreed to, a term could be identified. For the time being, a deletion would allow countries to use the term in the various meanings.

[77] The SC agreed to propose the deletion of the term "pre-clearance".

[14] Link to the SC May 2015 report for details on these discussions (section 5.2.2)

[78] The TPG Steward noted that the deletion of the term "pre-clearance" would not affect the meaning of "clearance (of a consignment)" which was considered to be clear.

[79] The Secretariat recalled that the SC had approved draft 2015 Amendments to ISPM 5 in their SC May 2015 meeting but that these had not been submitted to consultation for cost-efficiency reasons[15]. These would be combined with the current Amendments and all would be submitted for consultation in 2016.

[80] The SC:

(24) *approved* the draft 2016 Amendments to ISPM 5 (*Glossary of phytosanitary terms*) (1994-001) for submission to the First consultation (Appendix 7).

(25) *noted* that the draft 2015 Amendments and draft 2016 Amendments to ISPM 5 would be combined and submitted for consultation in one document.

5.2. Revision of ISPM 6 *Guidelines for surveillance* (2009-004), Priority 1

[81] As the Steward was unable to attend the meeting, the Assistant-steward introduced the draft revision and supporting documentation[16]. A small SC group met and reported the discussions. The SC discussed the following issues:

[82] **Title**. The SC agreed with the proposed change in title.

[83] **Terminology**. The SC discussed the need for increased coherence in the use of terms throughout the draft. The SC agreed to a hierarchy of terms (systems, programmes and protocols), and to add a diagram, for the purpose of clarifying terminology, and adjusted terms to this effect throughout the draft. The SC also changed "survey" to "surveillance" in all cases except where the concept clearly applied to a time-bound survey as defined in ISPM 5.

[84] **Introduction**. The SC deleted some background information related to the need for the revision of ISPM 6 as this was irrelevant for the understanding of the standard and inconsistent with other standards.

[85] **Background**. The SC discussed whether to add mention of "determination of pest status" as an activity underpinned by surveillance. Some SC members felt that this point was covered by other concepts already listed (e.g. pest distribution records) and thus not needed. Other SC members felt that it was appropriate to add because it could be considered a separate activity in some countries and because "status" was broader as it covered the spectrum from presence to absence. The SC agreed to add a point on this.

[86] **Impacts on the biodiversity and the environment**. The SC considered making this section relevant only to plant health, but decided that the standard may be relevant to human and animal health as well, for instance in the case where a pest is a vector for animal or human diseases.

[87] **Components of national surveillance systems**. Some SC members wished to modify that a national surveillance system "may contribute to the facilitation of trade" to "will contribute to the facilitation of trade" but other SC members disagreed because it may not always be the case as surveillance has other objectives than facilitating trade. The SC agreed not to change this point.

[88] The SC included mention of "capacity and infrastructure" to clarify that human resources are also essential in a surveillance system. The SC discussed whether to delete mention of examples of pests in the types of surveillance programmes, but agreed to retain the examples as the SC agreed it was helpful to clarify that on a programme level, surveillance targets a group of pests (e.g. fruit flies) and is not pest specific.

[89] **Phytosanitary legislation and policies.** One SC member queried the wording "entering premises" as she found this expression could be understood to mean "point of entry" or other similar. It was clarified

[15] See SC May 2015 report, section 3.1

[16] 2009-004; Link to Specification 61; Link to EWG 2015 Meeting Report

that this was intended to ensure that legislation would, for instance, allow for personnel to enter a property.

[90] The SC discussed whether to delete text referring to destroying or disposing of material that may pose a risk of spreading pests. Some SC members stressed the importance of having legislation to support this activity in connection with surveillance. Other SC members were in favour of deleting the text because this activity was not related to surveillance as such, but to control-related activities and although legislation should be in place for this, it was outside of the scope of the standard. The SC agreed to delete.

[91] The SC discussed whether to include that samples would be collected for the purpose of testing. Some SC members pointed out that this activity may be undertaken directly in the field during inspection and the clarification was therefore necessary. Other SC members were not in favour of this addition because it would restrict sampling to testing. The SC preferred to keep the paragraph more open.

[92] **Prioritization**. As to the elements to consider in prioritization, the SC considered adding "national" to the list of various arrangements because it could be relevant for maintenance of a pest free area for instance. Some SC members felt that this inclusion was not necessary because countries would normally always take their national priorities into consideration, thus it was not added.

[93] The SC modified text to clarify that elements of prioritization would include implementation of pest management programmes to make this broadly applicable (instead of referring to implementation of ISPMs).

[94] **Resources**. The SC agreed to add "diagnosis" in the list of items that may require financial resources because it was felt this was an essential component. The SC, however, noted that resources for diagnosis is not part of the scope of the standard.

[95] **Specific surveillance**. The SC discussed restructuring this section by adding a subheading on "design of specific surveillance protocols" and by removing the headings of the sections following. Some felt the subheading would enhance clarity on the content of the section, but others felt that it would actually be confusing as the whole overall section related to "surveillance design". The SC did not agree to include the subheading and thus not combine the sections.

[96] **Area selection**. The SC included "or site" in the heading as this would broaden the applicability.

[97] **Statistical design.** One observer expressed concern about the strong requirement that "NPPOs should state for the survey the level of confidence and the minimum level of detection of the pest" because this would not always be possible. Consequently, "should" was changed to "are encouraged to". The SC also discussed the reference to ISPM 31 *(Methodologies for sampling of consignments)* because this standard actually excludes field sampling and focuses on sampling in consignments. Thus, some SC members felt the reference should be deleted. Other SC members disagreed, clarifying that although ISPM 31 relates to consignments, it still describes statistical principles and methods in a way that provides good guidance. Referring alone to statistical text books was felt not to provide any specific guidance. The SC retained the reference.

[98] **Surveillance records**. The SC discussed whether "host" should always be included in the records. One SC member felt that without information on the host, the records were not useful in a phytosanitary context. Other SC members explained that this information would not always be available or obtainable, for instance when the pest was not physically on a host, for instance when detected as part of a trapping programme. There would also be cases where pests would not be found on the hosts but on regulated articles, such as packaging. The SC agreed to add that surveillance records should include "host scientific name (as often as possible)".

[99] **Analysis and reporting**. The SC moved a sentence from the section "components of general surveillance" to this section as it matched the content better.

[100] **Implementation challenges**. The major implementation challenges identified revolved mostly around countries prioritizing investments for surveillance programmes, diagnostics and expertise[17]. In respect to the latter issue, the SC felt that supporting material in the form of manuals, for instance, would assist to build the capacities to implement the standard.

[101] The SC:

(26) *approved* the draft Revision of ISPM 6 *National surveillance systems* (2009-004) as modified in this meeting for submission to the First consultation (Appendix 8).

5.3. Requirements for the use of temperature treatments as a phytosanitary measure (2014-005), Priority 1

[102] The Steward for the Technical Panel for Phytosanitary Treatments (TPPT) introduced the draft ISPM and supporting documentation[18].

[103] One SC member felt that the draft contained a lot of very useful information but that it seemed to belong more to a manual. The Secretariat recalled that the CPM had added this topic to the *List of topics for IPPC standards* and clearly indicated, by assigning it priority 1, that the CPs wished for such a standard.

[104] A small group met and reported back to the SC. The SC reviewed the draft, added a number of sections from ISPM 18 *(Guidelines for the use of irradiation as a phytosanitary measure)* (phytosanitary system integrity, documentation by the treatment facility, inspection and phytosanitary certification by the NPPO and research) because they were felt relevant, and adjusted the sections for relevance to temperature treatments.

[105] The SC discussed the following issues.

[106] **Scope**. The SC deleted one paragraph from the scope because it was a list of treatment types included in the standard and was not needed in the scope.

[107] **Outline of requirements.** The SC clarified the text to state that the efficacy of treatments should be demonstrated according to ISPM 28 to be more precise.

[108] **Background**. The SC agreed to clarify that the purpose of the standard is for the application of temperature treatments in general and "specifically for those adopted under ISPM 28".

[109] **Impacts on biodiversity and the environment**. The SC included a sentence to clarify that some temperature treatments may be applied as an alternative to other treatments that may impact the biodiversity or environment negatively, such as Methyl Bromide treatments.

[110] **Authority**. The SC discussed whether to include a sentence to state that NPPOs should be oversighting application of temperature treatments only on its own territory. Several SC members did not wish to include this because cold treatments are usually applied during transport, which would be outside the national territory. The SC did not include the sentence.

[111] **Application**. The SC discussed whether the requirement that treatment schedules should specify that live but not-viable target pests may be detected. Some SC members did not think this would be the case for temperature treatments as they thought that at the moment of inspection pests should not be alive. Other SC members disagreed because the TPPT members stated that this could be the case for temperature treatments. The SC agreed to retain the paragraph.

[112] **Cold treatment**. The SC deleted specific examples of pests for consistency with the other similar sections in the draft, and also modified for clarity the text pertaining to application of the treatment

[17] 09_SC_2016_May

[18] 2014-005; Link to Specification 62; Link to TPPT Sept. 2015 Meeting Report; Link to TPPT Dec. 2015 Meeting Report

during transport. Lastly a paragraph on pre- and post-shipment was deleted as this text was covered in the previous paragraph.

[113] **Temperature mapping**. Text was added to clarify that mapping should be done following approved procedures by a person or an organization approved by the NPPO. One observer suggested to change "monitoring and recording devices" to "sensors" but it was explained that the monitoring device would be, for instance, sensors but recording devices would not. The SC retained the original text. The SC changed "treatment facility" to "treatment chamber" for consistency in use of terminology within the draft.

[114] **Probe placement**. The SC removed the examples of where to place the probes because they were considered too specific and because it was not clear why these examples were given and not others.

[115] **Facility records**. The SC discussed whether to delete the requirement for "traceability" of the treatments records as some SC members felt it was too comprehensive a requirement. They did not believe that understanding whether non-compliance was due to treatment failure would be considered "traceability". Other SC members felt that it was an essential requirement and a normal component in a system so that faulty facilities could be identified. The SC agreed to instead refer to this concept as "trace-back".

[116] **Export inspection**. The SC agreed to retain mention of "examination for non-target pests" because the TPPT experts had pointed out that this was also relevant for temperature treatments and to clarify that finding live non-target pests could indicate treatment failure under certain conditions. The SC, however, deleted a paragraph that mentioned that live target pests could still be found after treatments because the concept had been mentioned earlier in the draft.

[117] **Phytosanitary certification**. One member suggested that "entity approved by the NPPO" should be changed to "entity authorized by the NPPO", however, it was clarified that it may not always be the NPPO that authorizes the entity; this may be done by a lower-level government agency.

[118] **Import inspection**. The SC discussed whether live target pests may be found when transport times are short, in the event inspection takes place before the treatment has finished. Some SC members pointed out that treatment would be initiated in advance of transport, or the container not be inspected before the treatment had been completed, so this was not considered correct and the statement deleted.

[119] **Appendix 1**. The SC agreed that a statement be added in the introductory paragraph regarding the necessity of specifying the level of mortality and of confidence that the efficacy study wishes to achieve. Similarly, the SC added "with the specified confidence level" in the section on "experimental design".

[120] One SC member suggested to mention quality standards in an effort to clarify that when researchers develop a treatment this could help address issues related to the possible adverse effect on the commodity. Some SC members felt it could be confusing referring to standards that are not phytosanitary and the appendix was targeted for researchers, but the SC finally agreed to the inclusion.

[121] Some SC members queried the use of "dose" and it was clarified that "dose" was used because this included both time and temperature and the TPPT felt that this was the appropriate term also for temperature treatment studies. The SC felt that this term was appropriate for irradiation or chemical treatments, but not for temperature treatments and agreed to replace "dose" with "temperature-time" throughout the draft.

[122] **References**. A reference listed in the references section of the Appendix was mentioned only in the core ISPM, and the SC agreed that it should be deleted from the Appendix.

[123] **Potential implementation** issues identified were the use of treatment equipment and the quality thereof; use of probes and their placement; costs associated with the establishment of treatment facilities; ensuring commodities would not be infested after treatment; and capacity building[19].

[19] 08_SC_2016_May;

[124] The SC:

(27) *approved* the draft ISPM *Requirements for the use of temperature treatments as a phytosanitary measure* (2014-005), as modified in this meeting, for submission to the First consultation (Appendix 9).

5.4. International movement of wood products and handicrafts made from wood (2008-008), Priority 2

[125] The Secretariat introduced the topic[20], noting that the draft ISPM was not deemed ready for presentation to the SC at this moment as the main conceptual issue related to the "certificate of compliance" needed to be clarified. He introduced a paper in which the FAO Legal and Ethics Service advised that it was legally possible to use a "certificate of compliance" in the IPPC framework[21] provided that the ISPM introducing it: (a) lays out specific certification requirements; (b) identifies the categories of products to which the certification would apply; and (c) defines compliance assessment procedure and identifies the entities (e.g. the national plant protection organization (NPPO) or authorized certifying entities) that are authorized to issue a *Certificate of compliance*. NPPOs would be ultimately responsible for the issuance and use of the *Certificate of compliance.*

[126] The SC discussed the conceptual issues related to a "certificate of compliance" and agreed that moving towards such a certificate was in principle a logical and necessary step, but that several significant conceptual, technical and implementation-related challenges connected with the certificate, would need to be addressed including:

- how to identify the categories of products to be covered
- whether it should address only bulk trade
- by whom it would be issued
- how to ensure compliance.

[127] One SC member queried what the difference would be between the certificate of compliance and the phytosanitary certificate. The Secretariat explained that it was expected that a third party authorized by the NPPO would issue the certificate of compliance, whereas the phytosanitary certificate is issued by a public officer. Thus the situation would be similar to the authorization and use of the ISPM 15 mark.

[128] One member suggested that the certificate be named "certificate of treatment" because he felt this would clarify what it covered, and also ensure that this certificate is not confused with a phytosanitary certificate. Other members believed that this name would limit the application of the certificate, as there would be cases where a commodity would meet the requirements without having been treated. FAO Legal and Ethics services advised that it would be essential that the denomination of the certificate is broad enough to cover all the authorized options.

[129] The SC agreed that it would be beneficial to study the technical and implementation challenges more closely and suggested that a request for an IRSS study or survey be made. The SC agreed that the small SC-IRSS group (see section 3.3 of this report) should draft a paper outlining the main challenges identified and include this proposal in the general SC proposal for the consideration of the CPM Bureau and the IRSS Team. The small group would be available to draft the outline of the study or survey. (See also section 10 of this report on proposals for discussions on concepts and implementation issues related to draft or adopted standards.)

[130] The SC:

(28) *agreed* to explore the concept of a certificate that attests compliance to clarify the implementation challenges.

[20] Link to Specification 57; Link to EWG September 2015 meeting report

[21] 24_SC_2016_May

(29) *asked* the small SC-IRSS group to develop a paper proposing an IRSS study/survey on the feasibility of the certificate and send it to the Secretariat (ippc@fao.org) by 31 July 2016 (see also section 3.3. of this report) for the SC to review and agree following via e-decision).

(30) *agreed* that the topic *International movement of wood products and handicrafts made from wood* (2008-008) be made pending the outcomes of the IRSS study/survey and the consequential SC considerations.

5.5. International movement of cut flowers and foliage (2008-005), Priority 4

[131] The Steward introduced the draft ISPM and supporting documentation[22]. She clarified that the scope had been restricted to flowers and non-woody foliage, for decoration or ornamentation in accordance with the SC November 2015 deliberations.

[132] A small SC group met and reported to the SC that they found the draft still required significant work. The SC briefly discussed the draft and concluded that the draft was not ready to be submitted to consultation. The SC agreed that the small SC group should provide input to the Steward, including seeking expert input on the main issues that the small SC group had identified. The Steward should then revise the draft for presentation to the next SC meeting.

[133] The SC:

(31) *requested* that the small SC group (Steward/Lead: Ms Ana Lilia MONTEALEGRE LARA, Mr Ezequiel FERRO, Mr Nico HORN, Ms Esther KIMANI) to continue developing the draft ISPM *International movement of cut flowers and foliage* (2008-005) with an intent to present it back to the SC November 2016.

(32) *invited* SC members to provide conceptual comments or general remarks on the draft ISPM *International movement of cut flowers and foliage* (2008-005) to be sent to the Steward, with copy to the small SC group and the Secretariat (ippc@fao.org), by 31 May 2016.

6. List of Topics for IPPC standards

6.1. Update from CPM-11 (2016) and review of the *List of topics for IPPC standards*

[134] The Secretariat updated the SC on the changes to the List of topics for IPPC standards made by CPM-11 (2016)[23]. It was noted that any changes agreed during this SC meeting, would be incorporated.

[135] It was recalled that the *List of topics for IPPC standards* is posted on the IPP in languages before the CPM sessions and after the SC-7 meeting[24].

[136] The SC:

(33) *approved* changes to the *List of topics for IPPC standards* as discussed in this meeting under various agenda items.

6.2. Adjustments to stewards

[137] The SC reviewed and made modifications to stewards and assistant stewards for some topics:

[138] 2004-004 *Technical Panel on Forest Quarantine*. Ms Marina ZLOTINA (USA) was assigned steward and Mr Lifeng WU (China) was assigned assistant steward.

[22] 2008-005; Link to Specification 56; Link to EWG June 2014 meeting report; 10_SC_2016_May; 07_SC_2016_May

[23] 22_SC_2016_May

[24] The *List of topics for IPPC standards* is available at: https://www.ippc.int/core-activities/standards-setting/list-topics-ippc-standards

[139] 2005-004 International movement of growing media in association with plants for planting. Ms Ana Lilia MONTEALGRE LARA (Mexico) was assigned steward, Ms Hilde PAULSEN (Norway) and Mr Jesulindo NERY DE SOUZA JUNIOR (Brazil) were assigned assistant-stewards.

[140] 2008-001 *Minimizing pest movement by sea containers*. Mr Nicolaas HORN (Netherlands) was assigned steward, there was no assistant-steward assigned.

[141] 2009-004 Revision of ISPM 6 *National surveillance systems.* Mr Ezequiel FERRO (Argentina) was assigned steward.

[142] 2006-029 *International movement of wood*. Mr Rajesh RAMARATHAM (Canada) was assigned steward.

[143] 2008-004 *Safe handling and disposal of waste with potential pest risk generated during international voyages*. Mr Álvaro SEPÚLVEDA LUQUE (Chile) was assigned steward.

[144] 2014-002 *Authorization of entities to perform phytosanitary actions*. Mr Rajesh RAMARATHAM (Canada) was assigned steward and Ms Marina ZLOTINA (USA) was assigned assistant steward.

[145] 2006-010 Revision of ISPM 15 *(Regulation of wood packaging material in international trade): Criteria for treatments for wood packaging material in international trade*. Ms Marina ZLOTINA (USA) was assigned steward and Mr Ezequiel FERRO (Argentina) was assigned assistant steward

[146] 2006-010A *Inclusion of the Phytosanitary treatment Sulphuryl fluoride fumigation of wood packaging material in annexes 1 and 2 of ISPM 15*. Ms Marina ZLOTINA (USA) was assigned steward and Mr Ezequiel FERRO (Argentina) as assistant steward.

[147] 2006-010B Revision of dielectric heating section (Annex 1 (Approved treatments associated with wood packaging material) to ISPM 15 (*Regulation of wood packaging material in international trade*). Ms Marina ZLOTINA (USA) was assigned steward and Mr Ezequiel FERRO (Argentina) as assistant steward.

[148] 2005-003 Appendix 1 to ISPM 20*: Arrangements for verification of compliance of consignments by the importing country in the exporting country*. Mr Ezequiel FERRO (Argentina) was assigned steward.

[149] 2008-002 *Minimizing pest movement by air containers and aircrafts*. Ms Shaza OMAR (Egypt) was assigned steward.

[150] 2008-006 *Use of specific import authorization* (Annex to ISPM 20: *Guidelines for a phytosanitary import regulatory system*). Ms Thanh Huong HA (Viet Nam) was assigned steward and Mr Moses Adegboyega ADEWUMI (Nigeria) as assistant steward.

[151] 2009-002 Revision of ISPM 4 *Requirements for the establishment of pest free areas*. Ms Walaikorn RATTANADECHAKUL (Kingdom of Thailand) was assigned assistant steward.

[152] 2015-003 *Audit in the Phytosanitary context*. Mr Álvaro SEPÚLVEDA LUQUE (Chile) was assigned steward and Mr Rajesh RAMARATHAM (Canada) was assigned assistant steward.

[153] 2015-010 Supplement on *Guidance on the concept of the likelihood of establishment component of a pest risk analysis for quarantine pests* (2015-010) to ISPM 11 (*Pest risk analysis for quarantine pests)*. Ms Marina ZLOTINA (USA) was assigned steward and Ms Esther KIMANI (Kenya) was assigned assistant-steward

[154] 2015-011 Revision of ISPM 12 *Phytosanitary certificates*. Ms Laurence BOUHOT-DELDUC (France) was assigned steward and Ms Shaza OMAR (Egypt) was assigned assistant-steward.

[155] 2015-012 *Reorganization of the IPPC fruit fly standards and minor technical updates*. TPFF was assigned steward and assistant-steward.

[156] 2014-007 *Requirements for the use of irradiation as a phytosanitary measure (Revision of ISPM 18)*. Mr Andrew PARKER (FAO-IAEA) was assigned steward and Mr Guy HALLMAN (US) was assigned assistant-steward.

[157] The Secretariat recalled that should a steward not be able to attend a meeting, it was expected that the assistant-steward should be prepared to step in and provide updates or, if necessary, attend the meeting.

[158] The updates on topics and assigned stewards are reflected in the *List of topics for IPPC standards* (2016-05) as posted on the IPP.

7. Draft specifications for approval for consultation (new topics)

[159] The draft specifications presented in this section were added to the *List of topics for IPPC standards* by CPM-11 (2016)[25].

[160] All draft specifications for approval for consultation were deferred to SC e-decision. The SC agreed that the review of the specifications should be carried out via the Online Comment System, for three weeks. The SC comments on the drafts would be compiled by the Secretariat and sent to stewards. The stewards would be given two weeks to address the comments and revise the specifications. The revised specifications would be then be presented to SC e-decisions.

[161] The Secretariat clarified that all three specifications would be launched at the same time.

7.1 Audit in the phytosanitary context (2015-003), Priority 2

[162] The approval of this draft specification[26] was deferred to an SC e-decision (see section 7 of this report).

7.2 Focused revision of ISPM 12: *Phytosanitary certificates* (2015-011), Priority 2

[163] The approval of this draft specification[27] was deferred to an SC e-decision (see section 7 of this report).

7.3 Supplement to ISPM 11: *Guidance on the concept of the likelihood of establishment component of a pest risk analysis for quarantine pests* (2015-010), Priority 4

[164] The approval of this draft specification[28] was deferred to an SC e-decision (see section 7 of this report).

8. Standards Committee

8.1 Report of the SC November 2015

[165] There were no comments on the report[29].

[166] The SC asked for feedback on the SC mentoring programme and several SC members expressed their appreciation for the programme, which they felt was useful and helped engage the new members.

[25] All the submissions that were received during the 2015 call for topics are available at: https://www.ippc.int/en/core-activities/calls-topics/

[26] 2015-003

[27] 2015-011

[28] 2015-010

[29] Link to SC November 2015 Meeting Report

[167] New mentors were identified for the many new SC members as follows:

Country	New member	Mentor
Congo	Ms Alphonsine LOUHOUARI TOKOZABA	Ms Laurence BOUHOT-DELDUC
United Kingdom	Mr Samuel BISHOP	Ms Jane CHARD
Turkey	Mr Nevzat BIRISIK	Mr Nicolaas Maria HORN
Brazil	Mr Jesulindo Nery DE SOUZA JUNIOR	Mr Ezequiel FERRO
Libya	Mr Ali Amin KAFU	Ms Thanh Huong HA
Lebanon	Mr Youssef Al MASRI	Mr Álvaro SEPÚLVEDA LUQUE
Oman	Mr Suleiman Mahfoudh AL TOUBI	Mr Gamil Anwar Mohammed RAMADHAN
Thailand	Ms Walaikorn RATTANADECHAKUL	Mr Nicolaas Maria HORN
Nigeria	Mr Moses Adegboyega ADEWUMI	Mr Ezequiel FERRO
USA	Ms Marina ZLOTINA	Mr Bart ROSSEL

8.2 Confirmation of SC-7 membership for May 2016 and May 2017 SC-7

[168] The SC:

(34) *agreed* to the membership of the SC-7 as presented in the Participants list (Appendix 3).

8.3 Summary on polls and forums discussed on e-decision site (From December 2015 To April 2016)

[169] The Secretariat presented a summary of polls and forums discussed on the e-decision site[30].

[170] One SC member expressed concerns that the participation of SC members in the e-decisions was still fairly low. The Secretariat stressed the importance of the participation of all SC members in the e-decision process and encouraged active participation from all. He also noted that the Standard setting unit was working with the IT specialists to possibly develop a more intuitive and easier system.

[171] He informed the SC that new SC members would be granted access to the SC work area of the International Phytosanitary Portal (IPP – www.ippc.int) after the SC-7 (2016).

[172] The SC:

(35) *noted* the update on polls and forums discussed on the e-decision site (December 2015 - April 2016) (Appendix 14).

(36) *noted* that the SC should inform the unsuccessful nominees for the TPFQ from their regions that they had not been selected by the SC.

9. Review of technical panels (from May 2015 to April 2016)

[173] The Secretariat thanked all the TP members, stewards and assistant-stewards as well as the Secretariat panel leads and support staff for their efforts to ensure productive meetings and inter-sessional work of the technical panels. He highlighted the continued unprecedented workload for the TPDP (21 draft DPs) and the TPPT (13 draft PTs), noting that SC member involvement in the work is essential.

[30] 12_SC_2016_May

[174] The SC also thanked the TPs for the great amount of work that all members, stewards, technical leads and DP authors do and the significant results produced, as well as the organizations and CPs that provide in-kind support, fund TP meetings and support their experts to participate in this work.

[175] The SC also thanked the Secretariat panel leads and support staff.

[176] The SC:

(37) *noted* that the technical panel updates and PowerPoint presentations would be posted on the restricted work area of the SC on the IPP.

9.1 Technical Panel on Phytosanitary Treatments (TPPT)

[177] The Secretariat presented an overview of TPPT activities carried out since May 2015[31].

[178] The next TPPT face-to-face meeting is scheduled for 29 August – 2 September 2016, tentatively in Tokyo, Japan.

[179] It was noted that for 2016, the TPPT planned to review:

- consultation comments and revision of four draft phytosanitary treatments from 2015 First consultation for recommendation to the SC.
- outcomes of research results on how different fruit fly populations respond to cold treatments in regards to the possible population differences of fruit flies, and consequential revision of nine draft phytosanitary treatments to be submitted to the SC for recommendation on the way forward.
- consultation comments and revision of draft ISPM *Requirements for the use of temperature treatments as a phytosanitary measure* (2014-005) for submission to the SC-7 in 2017.
- working procedures and the development of various documents related to its procedures and research recommendations.

[180] The TPPT Steward expressed his appreciation for the panel members' efforts, especially because the development of phytosanitary treatments would underpin and support the development of commodity standards.

[181] The Secretariat highlighted the high workload of the TPPT and invited the SC to consider in the future whether separate expert working groups should be called for to draft some of the "requirement" standards.

[182] The Secretariat updated the SC on the possibility of creating a searchable database for phytosanitary treatments based on the CPM-10 (2015) decision. He noted that the Phytosanitary resources page includes some phytosanitary treatments that have been agreed bilaterally, and the TPPT suggested that the database should include these along with the adopted IPPC phytosanitary treatments. The SC encouraged that work be undertaken to develop such a database, especially to search PTs on the Phytosanitary resources page as the Phytosanitary Measures Research Group intends to submit many NPPO approved treatments for inclusion.

[183] The SC:

(38) *noted* the following meeting reports: 2015 May TPPT virtual meeting, 2015 TPPT September Meeting, 2015 December TPPT virtual meeting and 2016 March TPPT virtual meeting virtual meeting.

(39) *approved* the TPPT medium term work plan presented in Appendix 9 of the TPPT September 2015 meeting report.

(40) *noted* the TPPT tentative work plan for May 2016 – April 2017.

[31] 20_SC_2016_May; IPP link to TPPT Meeting Reports (2015-05 virtual, 2015-09 face-to-face, 2015-12 virtual, 2016-03 virtual)

(41) *noted* the resignation of Mr Patrick GOMES (United States of America) from the TPPT and *thanked* him for the services rendered to the panel.

(42) *encouraged* the Secretariat to investigate further developing a searchable database on phytosanitary treatments that would include both adopted phytosanitary treatments and treatments posted on the Phytosanitary resources page.

9.2 Technical Panel for the Glossary (TPG)

[184] The Secretariat presented an overview of TPG activities carried out since May 2015[32].

[185] The next TPG face-to-face meeting is scheduled for 5-8 December 2016, Rome, Italy.

[186] It was noted that for 2016, the TPG planned to work on the following:

- Review of consultation comments and adjustments of the eight terms/definitions from 2016 First consultation included in the draft 2016 Amendments to ISPM 5
- Review all draft ISPMs and consultation comments for terms and consistency, including translation issues.
- Discussion on terms/definitions for inclusion into draft 2017 Amendments to ISPM 5
- Conceptual discussion on "commodity class"
- Concept of terminology
- ISPM 5 brochure.

[187] Regarding the possible participation in the TPG face-to-face meeting of an ePhyto Steering Group (SG) member, one SC member briefed the SC that this proposal had been shared with the ePhyto SG informally during their May 2015 meeting. The ePhyto SG had stressed that the harmonization of terms for commodities and commodity classes would be needed not only for electronic phytosanitary certification but for phytosanitary certification in general. The ePhyto SG had also considered that there may be a need not to restrict the discussion to "commodity" and "commodity class" but rather consider the broader framework of the terms used in phytosanitary certification. The ePhyto SG appreciated that the TPG undertake work on the harmonization of these terms and was available to be consulted these issues.

[188] The Secretariat clarified that there would be some restrictions for the TPG to be able to consider harmonization of terms broadly because the current TPG specification states that the TPG is tasked with work on terms that are used in ISPMs. However, he underlined the importance and usefulness of entering into discussions with ePhyto SG.

[189] One SC member queried how to request that the TPG review specific terms. The Secretariat explained that normally the issues raised in connection with specific terms come from the drafting of new standards, and that it was not common for the SC to suggest review of terms without a specific context. However, SC is responsible for adding or deleting subjects (i.e. terms) so may do this as appropriate.

[190] As to the TPDP contacting TPG directly on issues related to terminology and consistency, the SC requested to be informed of the issues discussed. The Secretariat would inform the SC during SC meetings as necessary.

[191] The SC:

(43) *deleted* the following terms from the List of topics for IPPC standards:

- "bark (as a commodity)" (2013-005)
- "confinement facility" (2015-001)
- "containment" (2011-004)
- "control (of a pest)" (2011-005)

[32] 18_SC_2016_May; IPP link to TPG meeting report (2015-12 face-to-face)

- "country of origin" (2006-016)
- "eradication"(2011-003)
- "inspection" (2015-012)

(44) *agreed* that a representative from the ePhyto Steering Group be invited to participate in a dedicated part of the TPG 2016 face-to-face meeting when dealing with the definition of "commodity", "commodity class" (2015-013) and actual terms belonging to those two categories.

(45) *noted* the TPG discussions on the concept of "traceability", notably that the different meanings of the term are clear in those ISPMs that use the term.

(46) *asked* the TPPT to consider if "process load" is a useful term in the IPPC context, whether it is useful and commonly used for other treatment types than irradiation, and whether it could be used more frequently in ISPMs in the future.

(47) *added* the following terms to the *List of topics for IPPC standards*:

- "confinement" (2016-002)
- "ecosystems" (2016-003)
- "growing season" and "growing period" (2016-004)
- "habitat" (2016-005)
- "modern biotechnology" (2016-006).

(48) *noted* the modified *General recommendations on consistency* as published in the IPPC Style guide (updated in February 2016).

(49) *noted* that "revised" will only be included at the mention of the first source of revision in the Annotated Glossary and in ISPM 5, and that ink amendments will not be listed in the sources of terms in ISPM 5.

(50) *noted* that the 2016 version of the Explanatory document on ISPM 5, the "Annotated Glossary", was published in March 2016 on the IPP.

(51) *noted* the TPG 2015-2016 Work plan and the work performed by the TPG over the last year.

(52) *modified* the TPG specification to state that the review of draft ISPMs for consistency and use of terms following member consultation would exclude draft diagnostic protocols.

(53) *agreed* that the TPDP may contact the TPG directly (through the IPPC Secretariat) for any query related to terminology or consistency in the use of terms.

9.2.1 Ink amendments

[192] The TPG Steward introduced ink amendments across standards and to specific standards[33].

[193] **Ink amendments across standards to replace "trading partner"** (2013-009). The SC had no modifications to the TPG proposals.

[194] **Ink amendments to ISPM 3** to replace "quarantine facility" with "quarantine station". The SC had no modifications to the TPG proposals.

[195] **Ink amendments across standards for "controlled area" and "protected area" with "regulated area"**. The SC had no modifications to the TPG proposals.

[196] **Ink amendments to the term "practically free" in ISPM 5**. The SC had no modifications to the TPG proposals.

[197] The SC:

(54) *reviewed* and *approved* the ink amendments presented in Appendixes 10-13 to be presented to CPM-12 (2017) for noting.

[33] 06_SC_2016_MC and attachments 1-4

9.3 Technical Panel for Diagnostic Protocols (TPDP)

[198] The Secretariat presented an overview of TPDP activities carried out since May 2015[34].

[199] The next face-to-face meeting is scheduled for 11 – 15 July 2016 in Montego Bay, Jamaica.

[200] It was noted that two additional expert consultations were planned to take place in the 2nd and 4th quarter of 2016 for at least six draft diagnostic protocols.

[201] For 2016, the TPDP planned to work on the following:

- continue progressing 21 draft diagnostic protocols aiming at submitting the current diagnostic protocols for adoption by 2019.
- best practices for sequencing and next generation sequencing
- quality assurance issues
- diagnostic protocols and the issue of the viability of pests detected by molecular tools

[202] The TPDP Steward joined via conference call and expressed great appreciation for the work done by the TPDP members, all the DP authors and the Secretariat for the continued, efficient support. She also pointed out that DPs would have an important role in the future, especially in light of the current pilot Programme on surveillance and the many serious pest outbreaks that the world is experiencing for which there are no internationally harmonized protocols. With this in mind, she encouraged the SC to carefully consider the future of the TPDP work.

[203] The Secretariat also confirmed the high productivity of the TPDP and the enormous resources spent through the dedicated efforts of hundreds of DP authors, as well as pointed out the peak in processing DPs through the Standard setting process in 2016. For this reason, the Secretariat stressed the need to continue the work on existing draft ISPMs through to adoption.

[204] Some SC members queried the change in the scope and title from "Tephritidae: Identification of immature stages of fruit flies of economic importance by molecular techniques (2006-028)" to "Genus *Ceratitis*" (2006-028). They felt that Genus *Ceratitis* was already well known and resources may rather be spent on developing DPs for identification of immature stages for major genera of great global importance. The TPDP steward pointed out that developing a DP that described molecular techniques for the identification of the Genus *Ceratitis* larvae would be an important first step to building confidence in this type of technique. She also noted that there are few data for the other fruit fly genera.

[205] Some SC members felt the TPDP should develop a DP on Genus *Ceratitis* and it should be focused on identification of immature stages by molecular techniques, but it was pointed out that molecular techniques also applied to adults and the TPDP Steward felt it would not be much work to also include morphological identification of adults. The SC agreed to add a new subject for "Genus *Ceratisis*" and to keep the subject "Tephritidae: Identification of immature stages of fruit flies of economic importance by molecular techniques (2006-028)", noting this DP could be developed in the future when research had advanced.

[206] The SC:

(55) *noted* the following meeting reports: 2015 TPDP June meeting report, 2015 TPDP September virtual meeting, 2015 TPDP November virtual meeting and 2016 TPDP March virtual meeting.

(56) *approved* the TPDP medium term plan presented in Appendix 05 of the TPDP June 2015 meeting report.

(57) *noted* the TPDP tentative work plan for May 2016 – April 2017.

[34] 19_SC_2016_May; IPP link to TPDP Meeting Reports (2015-06 face-to-face, 2015-09 virtual, 2015-11 virtual, 2016-03 virtual)

(58) *noted* the revised TPDP Instructions to authors of diagnostic protocols (posted on IPP[35] on the TPDP webpage).

(59) *added* the subject "Genus *Ceratitis* (2016-001) to the TPDP work programme.

(60) *noted* that the name of the draft DP "*Liberibacter* spp. / *Liberobacter* spp on *Citrus* spp. (2004-010)" was changed to "*Candidatus* Liberibacter spp. on *Citrus* spp. (2004-010)" to reflect the current taxonomy.

(61) *noted* the resignation of Ms Ana Lia TERRA (Uruguay) from the TPDP and *thanked* her for the services rendered to the panel.

(62) *agreed* to offer a second five-year term to Mr Norman BARR (United States of America – Entomology) starting in August 2017.

(63) *agreed* to offer a second five-year term to Mr Brendan RODONI (Australia – Virology / Bacteriology) starting in August 2017.

(64) *noted* the work performed by the TPDP over the last year.

9.4 Technical Panel on Pest Free Areas and Systems Approaches for Fruit Flies (TPFF)

[207] The Secretariat presented an overview of TPFF activities carried out since May 2015[36] and noted that the TPFF did not plan to meet face-to-face in 2016. The Secretariat explained that the TPFF planned to work on assisting the reorganization and harmonization of fruit fly standards for the coming years, as needed.

[208] The SC discussed the recommendation to extend the terms of all members on the panel. One SC member expressed some concerns about the fact that the panel had not been replenished with new experts for many years. Other SC members, however, supported the extension of the terms pointing out that it would be challenging and counter-productive having new experts to take over the reorganization and harmonization of the fruit fly standards at this point. The SC supported that the current composition of the panel continue with extended membership.

[209] The SC also discussed how to approach future work related to fruit flies but agreed that this should be considered in detail if and when the issue would arise in the future.

[210] As to the implementation challenges identified by the TPFF, some SC members thought that the work to address these challenges be best dealt with outside of the SC. Other SC members felt that it was important for the SC to also consider implementation issues, recalling that this is a task for all the technical panels and expert drafting groups to consider. They suggested that this could be addressed by developing an Explanatory document for implementing fruit fly ISPMs. The SC agreed that the development of an Explanatory document or a technical manual should be reconsidered following the CPM decision on the reorganization of the suite of fruit fly standards. As to the proposal for the development of a "Guide for implementation fruit fly ISPMs" with the Joint FAO/IAEA division the SC felt that this should be discussed and considered within the Secretariat.

[211] The SC discussed whether to recommend that a side event be held at CPM-12 in parallel to the more formal discussions on the reorganization. As the Secretariat clarified that during CPM-12 the side-events would be held together after the decision making process, the SC did not support proposing a side-event and suggested that the rationale and impact of the reorganization should be provided to the CPM in a presentation given during a Plenary session.

[212] The SC:

(65) *extended* the terms of all TPFF members until the work on reorganization and harmonization of fruit fly standards has been concluded or until 2018, whichever comes first.

[35] TPDP Instructions to Authors: https://www.ippc.int/en/publications/1180/

[36] 17_SC_2016_May; IPP link to TPFF Meeting Reports (2015-10 face-to-face)

(66) *asked* the TPFF Steward together with the Secretariat to prepare a presentation of the rationale and impact of the reorganization for presentation to a Plenary session during CPM-12 (2017).

(67) *invited* the Secretariat to discuss the best approach for developing a "Guide for implementing fruit fly ISPMs" with the Joint FAO/IAEA Division, following the future decision on the reorganization of the suite of fruit fly standards.

(68) *noted* the work performed by the TPFF over the last year.

9.4.1 Reorganization of the IPPC fruit fly standards and minor technical updates

[213] The Secretariat demonstrated the proposal for harmonization and reorganization of, and ink amendments to, the suite of IPPC fruit fly standards (2015-012)[37]. He pointed out the main changes, namely that:

- ISPM 30 *(Establishment of areas of low pest prevalence for fruit flies (Tephritidae)* had been incorporated into ISPM 35 *(Systems approach for pest risk management of fruit flies (Tephritidae)* as Annex 1, and text in ISPM 35 and former ISPM 30 had been harmonized to enhance clarity and avoid duplication.
- The text of former Annex 2 to ISPM 30 had been integrated into Section 8 of Annex 1 to ISPM 35 (former ISPM 30).
- The former Appendix 1 to ISPM 30 was no longer relevant because ISPM 26 *(Establishment of pest free areas for fruit flies (Tephritidae)* has an elaborated and recently adopted appendix on fruit fly trapping, and consequently was not incorporated into ISPM 35. A reference to Appendix 1 of ISPM 26 had been added instead.
- Former Appendix 2 of ISPM 30 had become Appendix 1 of Annex 1 of ISPM 35 (former ISPM 30).
- Cross references between fruit fly standards as well as between fruit fly standards, annexes to ISPM 28 and annexes to ISPM 27 *(Diagnostic protocols for regulated pests)* had been included in the relevant fruit fly standards.
- Titles had been aligned and abbreviations had been written out.
- "Tephritidae" had been included in titles of cores ISPMs but deleted from annexes and appendixes as it was superfluous to have in titles of both levels.
- The word "guidelines" had been removed as far as possible, as per SC recommendation.
- Cross-referencing had been harmonized between the core ISPMs, annexes and appendixes.
- Technical terms and phrases were harmonized.
- Additional editorial inconsistencies were corrected in all documents.

In addition, the following minor technical changes were also made:

- The term "parapheromone" had been replaced with "male lure"
- The term "loss" of status had been replacted with "revocation" of status
- New scientific taxonomic synonymisation of *B. dorsalis; B. invadens; B. papayae* and *B. philippinensis* had been incorporated.

[214] The SC expressed appreciation for the work done on updating of taxonomic information due to its importance for trade and pest risk analysis.

[215] One SC member queried if the standards could be applicable also to *Drosophila suzukii*. The Secretariat explained that the TPFF had considered this but found that the science was still too uncertain on this point. The panel had recommended that the standards should still be limited to Tephritidae.

[216] The Secretariat clarified that the CPM would have to agree to the reorganization and revoke ISPM 30. The ink amendments would be submitted to CPM for noting.

[37] 05_SC_2016_May

[217] The SC discussed the following issues regarding the proposed reorganization.

[218] One SC member queried the rationale for retaining Annex 3 of ISPM 26 under ISPM 26 and not moving it to ISPM 35. The Secretariat explained that while Annex 3 is relevant to both ISPMs, ISPM 26 had been adopted first and the panel, wishing to minimizing the changes, recommended to leave it under ISPM 26.

[219] Some SC members expressed concerns about changing ISPM 30 to an annex under ISPM 35 because, while it is true that the establishment of area of low pest prevalence of fruit flies (ALPP-FF) is usually part of a systems approach, an ALPP-FF may also be used in the future as a standalone measure.

[220] Other SC members explained that in international trade they were unaware of examples of commodities being traded from an ALPP-FF without there having been other measures applied as part of a systems approach and that placing ALPP-FF under ISPM 35 seemed logical and would facilitate implementation of the fruit fly standards. It was also recalled that an annex of a standard may still be used on its own. Although it was not foreseeable to have situations where countries would accept commodities from an ALPP-FF without there having been other measures applied. Considering that ISPMs address international harmonization of measures, and not particular bilateral arrangements, many SC members supported the proposed reorganization. However, to address the concern raised by some SC members, other SC members suggested that a sentence could be included in the former ISPM 30 to state that ALPP-FF could be used as a standalone measure if desired.

[221] Another SC member suggested that ISPM 26 be included under ISPM 35 because he believed that establishment of a fruit fly pest free area (FF-PFA) and establishment of an ALPP-FF would both be part of systems approaches on equal terms. Other members disagreed because there an FF-PFA (e.g. as a result of natural climatic conditions or geographical isolation from infested areas) is usually used as a standalone measure and not in a systems approach.

[222] The Secretariat expressed deep concerns about the fact that the SC had been presented with the overall proposal for reorganization in November 2015 and that no concerns were raised at that time regarding the proposal to move ISPM 30 under ISPM 35. That meant that the TPFF and the Secretariat had spent significant resources in finalizing the consequential ink amendments based on the SC November 2015 decision. One SC member noted this proposed reorganization was presented to the SC in a PowerPoint presentation and not in paper as it was noted the TPFF had only developed the proposed reorganization plan a few weeks before. It was highlighted that this work had been funded by the Joint IAEA/FAO division and no resources were currently available for the TPFF to meet to discuss the issue again. The Secretariat furthermore highlighted that, based on CPM set priorities, it would not be able to carry out the further adjustments to reorganization of the standards and ink amendments for the time being.

[223] The SC reviewed the textual changes, agreed they were ink amendments and that they should be submitted to CPM for noting. Only five ink amendments were not accepted and one revised, specifically:

- Attachment 01 [120]: As it was felt the adjustment would change the meaning.
- Attachment 02 [25]: Because the SC agreed the necessary documentation should accompany the regulated articles moved within the eradication area to indicate the articles' origin and destination, the SC did not agree to the proposed change.
- Attachment 03 [37]: "Programme" was left without the qualifying adjective "management" because it was not clear to which type of programme it referred to.
- Attachment 04 [190]: The SC added an editorial change to use the Glossary term "point of entry".
- Attachment 05 [109]: The SC did not agree to change "continuing" to "again" as this changed the meaning.
- Attachment 05 [114]: The SC did not agree to add "pest" as this was redundant.

[224] The SC discussed the way forward on the reorganization considering that the SC was unable to reach consensus. Many SC members supported that the proposed reorganization and associated ink

amendments would be recommended to the CPM to approve the reorganization, revoke ISPM 30 and note the ink amendments. Nevertheless, other SC members maintained their disagreement with the proposed reorganization. As a result, the SC agreed that the details of all positions maintained should be presented to the CPM along with a clear explanation as to why the fruit fly ISPMs had been reorganized in this manner and the benefits. In addition, some indication of the resources utilized for the proposed or any future reorganization should be presented.

[225] The SC:

(69) *agreed* to present the proposed reorganization of IPPC fruit fly standards to CPM along with the details of all positions maintained for discussion and appropriate action by the CPM.

(70) *reviewed* and *approved* the ink amendments in the standards mentioned in Attachment 1-6 of document 05_SC_May_2016, as modified, and agreed that they be presented to CPM for noting dependent on the CPM decision on the reorganization of the IPPC fruit fly standards[38].

9.5 Technical Panel on Forest Quarantine (TPFQ)

[226] The Secretariat presented an overview of TPFQ activities carried out since May 2015[39].

[227] The next face-to-face meeting is scheduled for 06 – 10 June 2016 in Victoria, Canada.

[228] It was noted that for 2016, the TPFQ planned to work on the following:

- Revision of ISPM 15 (Regulation of wood packaging material in international trade): Criteria for treatments for wood packaging material in international trade (2006-010) (Priority 2).
- Draft annex on Forest tree seeds to draft ISPM on *International movement of seed* (2009-003) (Priority 1).
- The TPFQ may be asked to assist the Steward in responding to member comments from the Second consultation period on the revision of the dielectric heating section (Annex 1 (Approved treatments associated with wood packaging material) to ISPM 15 (*Regulation of wood packaging material in international trade*) (2006-010A and 2006-010B).
- The TPFQ may be asked to assist the Steward in responding to member comments from the Second consultation period on the inclusion of the PT: Sulfuryl fluoride fumigation of wood packaging material (2007-101) in ISPM 15 (2009)

[229] The SC:

(71) *noted* the following TPFQ meeting reports: July 2015, October 2015, and February 2016 virtual meetings.

(72) *noted* the work performed by the TPFQ over the last year.

(73) *thanked* Piotr WLODARCZYK (Poland), former steward, and Marie-Claude FOREST (Canada), former Assistant-steward for the services they provided the past years.

(74) *noted* the tentative TPFQ work plan for the period May 2016-April 2017.

10. SC recommendations for CPM-12 (2017) decisions and discussions (including proposals for discussions on concepts and implementation issues related to draft or adopted standards, special topics session and side events)

[230] The SC reviewed their previous proposals[40] and did not add any additional ones.

[38] The ink amendments are not attached to this report because of their length.

[39] 15_SC_2016_May; IPP link to TPDP Meeting Reports (2015-06 virtual, 2015-10 virtual, 2016-02 virtual)

[40] 26_SC_2016_May

[231] The SC:

(75) *invited* the Bureau in their June 2016 meeting to consider the SC proposals for discussions on concepts and implementation issues related to draft or adopted standards, special topics session and side events.

11. Agenda items deferred to future SC Meetings

[232] There were no agenda items deferred.

12. Review of the Standard Setting Calendar

[233] The Secretariat explained that the standard setting calendar is available on the IPP[41]. SC members were reminded to check the calendar regularly for updates on standard setting meetings.

[234] Stewards for draft ISPMs approved for First consultation were reminded to provide presentations for the IPPC regional workshops by 15 June 2016 (a template will be emailed to the stewards).

[235] The Secretariat informed the SC that the following meetings may tentatively be held in 2017:

- EWG for the revision of ISPM 8 *Determination of pest status in an area* (2009-005) (priority 1)
- Face-to-face meetings of TPPT, TPDP, TPG and, possibly, TPFQ.

Future SC e-decisions

[236] The Secretariat stressed the need for all SC members to actively participate in SC e-decisions.

[237] The following SC e-decisions are tentatively planned between SC May 2016 – SC November 2016:

[238] **Regarding draft specifications:**

- SC approval for consultation of draft specification on Audit in the phytosanitary context (2015-003), Priority 2
- SC approval for consultation of draft specification on Focused revision of ISPM 12: Phytosanitary certificates (2015-011), Priority 2
- SC approval for consultation of draft specification on Supplement to ISPM 11: Guidance on the concept of the likelihood of establishment component of a pest risk analysis for quarantine pests (2015-010), Priority 4

[239] **Regarding IPPC Subsidiary Bodies:**

- SC approval of the SC proposals for IRSS studies

[240] **Regarding EWGs:**

- Tentative: Selection of experts for EWG on Revision of ISPM 8. *Determination of pest status in an area* (2009-005)

[241] **Regarding the TPDP:**

Note: SC e-decisions starting on 01 June 2016

- Draft diagnostic protocol for DP notification period (01 July 2016) and approval of TPDP responses to member comments:
  - *Xanthomonas fragariae* (2004-012)
- Draft diagnostic protocols for DP notification period (15 December 2016) and approval of TPDP responses to member comments:

[41] Link to the IPP calendar

- *Anguina* spp. (2013-003)
- *Dendroctonus ponderosae* (2006-019)
- *Fusarium circinatum* (2006-021)

[242] **Regarding the TPPT:**

- Draft phytosanitary treatments recommended to CPM or for submission to a second consultation period:
  - Sulfuryl fluoride fumigation of insects in debarked wood (2007-101A)
  - Sulfuryl fluoride fumigation of nematodes and insects in debarked wood (2007-101B)
  - Heat treatment of wood using dielectric heating (2007-114)
  - Vapour heat treatment for *Bactrocera tryoni* on *Mangifera indica* (2010-107)
  - Vapour heat treatment for *Bactrocera dorsalis* on *Carica papaya* var. Solo (2009-109)
  - Vapour heat treatment for *Ceratitis capitata* on *Mangifera indica* (2010-106)
  - Cold treatment for *Ceratitis capitata* on *Citrus clementina* var. Clemenules (2010-102)
  - Cold treatment for *Ceratitis capitata* on *Citrus sinensis* var Navel and Valencia (2010-103)
  - Cold treatment for *Ceratitis capitata* on *Citrus sinensis* 2007-206A
  - Cold treatment for *Ceratitis capitata* on *Citrus reticulata* x *C. sinensis* 2007-206B
  - Cold treatment for *Ceratitis capitata* on *Citrus limon* 2007-206C
  - Cold treatment for *Ceratitis capitata* on *Citrus paradisi* (2007-210)
  - Cold treatment for *Ceratitis capitata* on *Citrus reticulata* cultivars and hybrids (2007-212)

[243] The SC:

(76) *noted* the standard setting calendar for 2016 and the tentative SC e-decisions from May 2016 to November 2016.

13. Other business

13.1 EWG on *International movement of grain* (2008-007)

[244] One SC member informed the SC that two members of the EWG on *International movement of grain* (2008-007) from the Latin America and Caribbean region will not able to attend the EWG meeting to draft this standard. He invited the SC to consider selecting another member from this region to this EWG.

[245] An SC member from Europe noted that Europe had also requested this on a previous occasion but, considering the rules for nomination of experts, this was not agreed by the SC. However, he would support an additional call for experts.

[246] The Secretariat summarized the history of the calls for this EWG and the associated SC decisions. He clarified that some experts were no longer able to participate in the EWG because significant time had past since the experts were selected due to the fact that the SC had not been able agree on the composition of the group. The Secretariat also recalled that experts were not regional representatives but chosen based on their expertise, although it was recognized that it is important that the experts represented both grain-importing and grain-exporting countries.

[247] A few SC members supported that the EWG meeting be delayed and for a new call to be issued. Several other SC members expressed strong concerns on this proposal as the rules had been followed, the EWG had been already delayed for some years, and the EWG would have to be delayed even further. Additionally, it was noted that funding for the EWG may not continue to be available.

[248] Some SC members suggested that a compromise solution would be to extend the participation to an invited expert who does not take part in the decisions.

[249] The SC:

(77) *agreed* to invite Diego QUIROGA (Argentina) as an invited expert to attend the EWG on the *International movement of grain* (19-23 September 2016, Melbourne, Australia).

13.2 Election of Vice-Chairperson

[250] The SC elected Ms Shaza OMAR as SC Vice-Chairperson, who graciously accepted the honor.

14. Date and Venue of the Next SC Meeting

[251] The next SC meeting is scheduled for 14-18 November 2016, Rome, Italy.

15. Evaluation of the Meeting Process

[252] The Secretariat informed the SC that an electronic evaluation form had been created and invited all SC members to submit their evaluation via this link: https://www.surveymonkey.com/r/SC_May_2016 by 1 June 2016.

[253] The SC Chairperson implored that all SC members would come prepared for active engagement in the meeting.

[254] One SC member encouraged that the Secretariat provide training on the Online Comment System at every SC meeting where there are new members participating.

16. Adoption of the Report

[255] The SC adopted the report.

[256] For ease of reference, a list of action points arising from the meeting is attached as Appendix 15.

17. Close of the Meeting

[257] The SC Chairperson thanked all the SC members, the stewards and the SC-7 for their hard work, and expressed his special gratitude to the SC members whose last meeting this was, especially Ms Ruth WOODE, Vice-Chairperson for her important advice and steady hand during the SC meetings. He also thanked the Rapporteur for being highly efficient and precise. He thanked the Secretariat for their continued support between and during sessions to coordinate the many tasks needed to fulfill his capacity as Chairperson and help ensure that the SC can efficiently develop standards.

[258] He stressed the significant workload in the upcoming months, and encouraged all SC members to articulate their concerns and views during meetings to ensure all views could be taken into account.

[259] The Secretariat also thanked the SC and expressed special gratitude to the stewards who take on noteworthy additional work.

[260] He extended special appreciation to the SC members who gave presentations during the 4th IPPC Seminar on Plant health standards and food security; a milestone event where the work of the SC was showcased.

[261] The SC thanked the SC Chairperson for his efficient leadership and patience, and the Secretariat for the support provided.

[262] The SC Chairperson closed the meeting.

APPENDIX 1: Agenda

AGENDA ITEM	DOCUMENT NO.	PRESENTER
1. Opening of the meeting		
2.1. Welcome by the IPPC Secretariat ❖ Welcome to new SC members	---	XIA
2.2. Election of the Rapporteur	---	Chairperson
2.3. Adoption of the Agenda	01_SC_2016_May	Chairperson
2. Administrative Matters		
❖ Documents List	02_SC_2016_May	GERMAIN
❖ Participants List	03_SC_2016_May	GERMAIN
❖ Local Information	Link to local information	GERMAIN
❖ Standard Setting Unit staff	Link to standard setting staff	LARSON
3. Updates		
3.1 Items arising from governance bodies		
❖ CPM-11 (2016)	11_SC_2016_May	LARSON
❖ CPM Bureau	21_SC_2016_May 26_SC_2016_May	
3.2 Interactions between subsidiary bodies		
❖ CDC: Relationship between the SC and the CDC	23_SC_2016_May_ Rev01	Chairperson
❖ SBDS		N/A
❖ NROAG	13_SC_2016_May	NOWELL
❖ SPG		N/A
3.3 Briefings from IPPC Secretariat		
❖ Standard Setting Unit	14_SC_2016_May	LARSON
❖ Implementation Facilitation Unit	16_SC_2016_May	SOSA
❖ Tentative Date And Venues Of The 2016 IPPC Regional Workshops	25_SC_2016_May	MOREIRA
❖ General update from IPPC Secretariat		FEDCHOCK
4. Draft ISPMs for recommendation to CPM (From November 2015 SC meeting)		
4.1. Draft ISPM on International movement of wood (2006-029), Priority 1 ❖ Steward: Marie-Claude FOREST	2006-029	LARSON
❖ Steward's notes	04_SC_2016_May	

AGENDA ITEM	DOCUMENT NO.	PRESENTER
5. Draft ISPMs from expert drafting groups (EWG/TP) for the first consultation		
5.1. 2016 Amendments to ISPM 5 (Glossary of phytosanitary terms) (1994-001) - Steward: Laurence BOUHOT-DELDUC	1994-001	BOUHOT-DELDUC (MOLLER)
5.2. Revision of ISPM 6 *Guidelines for surveillance* (2009-004), Priority 1 - Steward: Piotr WLODARCZYK ❖ Specification 61 (for information) ❖ Update from the Expert working group (EWG) o Report (28 September – 2 October 2015) ❖ Potential implementation issues	2009-004 Link to Specification 61 Link to EWG 2015 Meeting Report 09_SC_2016_May	WLODARCZYK (MOREIRA) WLODARCZYK
5.3. Requirements for the use of temperature treatments as a phytosanitary measure (2014-005), Priority 1 - TPPT Steward: Bart ROSSEL ❖ Specification 62 (for information) ❖ Update from the Technical Panel on Phytosanitary Treatments (TPPT) o Report of the September 2015 face-to-face meeting o Report of the December 2015 virtual meeting ❖ Potential implementation issues	2014-005 Link to Specification 62 Link to TPPT Sept. 2015 Meeting Report Link to TPPT Dec. 2015 Meeting Report 08_SC_2016_May	ROSSEL (MOREIRA) ROSSEL
5.4. International movement of wood products and handicrafts made from wood (2008-008), Priority 2[42] - Steward: Lifeng WU ❖ Specification 57 (for information) ❖ Expert working group (EWG) Meeting Report ❖ FAO legal service advice on the use of "certificates of compliance"	 Link to Specification 57 Link to EWG September 2015 meeting report 24_SC_2016_May	WU (LARSON) WU
5.5. International movement of cut flowers and foliage (2008-005), Priority 4 - Steward: Ana Lilia MONTEALEGRE ❖ Specification 56 (for information)	2008-005 Link to Specification 56	MONTEALEGRE

[42] The draft ISPM on the *International movement of wood products and handicrafts made from wood* (2008-008) is not ready yet to be presented to the SC for member consultation. For reference, SC members can consult the latest version that was presented to the November 2015 SC meeting: https://www.ippc.int/en/work-area-pages/2015-november-sc/

AGENDA ITEM	DOCUMENT NO.	PRESENTER
❖ Expert working group (EWG) Meeting Report	Link to EWG June 2014 meeting report	(MOREIRA)
❖ Steward's notes	10_SC_2016_May	
❖ Potential implementation issues	07_SC_2016_May	
6. List of Topics for IPPC standards		
6.1. Update from CPM-11 (2016) and review of the *List of topics for IPPC standards*	22_SC_2016_May	HOWARD
6.2. Adjustments to stewards	22_SC_2016_May	LARSON
7. Draft specifications for approval for consultation (new topics added to the *List of topics for IPPC standards* by CPM-11 (2016)[43])		
7.1. Audit in the phytosanitary context (2015-003), Priority 2	2015-003	LARSON
7.2. Proposed revision of ISPM 12: Phytosanitary certificates (2015-011), Priority 2	2015-011	LARSON
7.3. Supplement to ISPM 11: Guidance on the concept of the likelihood of establishment component of a pest risk analysis for quarantine pests (2015-010), Priority 4	2015-010	LARSON
8. Standards Committee		
8.1. Report of the SC November 2015	Link to SC November 2015 Meeting Report	Chairperson
8.2. Confirmation of SC-7 membership for May 2016 and May 2017 SC-7		Chairperson
8.3. Summary on polls and forums discussed on e-decision site (From December 2015 To April 2016)	12_SC_2016_May	FARREN
9. Review of technical panels (from May 2015 to April 2016)		
9.1. Technical Panel on Phytosanitary Treatments (TPPT) ❖ TPPT meeting reports: ○ 2015-05 virtual, ○ 2015-09 face-to-face, ○ 2015-12 virtual, ○ 2016-03 virtual[44] ❖ Update on activities of the TPPT	IPP link to TPPT Meeting Reports 20_SC_2016_May	MOREIRA
9.2. Technical Panel for the Glossary (TPG) ❖ TPG meeting report (2015-12 face-to-face) ❖ Update on activities of the TPG ❖ Ink amendments ("trading partner", "quarantine facility" "practically free", "controlled area"/"protected area")	IPP link to TPG meeting report 18_SC_2016_May 06_SC_2016_May (Including attachments 01-04)	MOLLER MOLLER BOUHOT-DELDUC

[43] All the submissions that were received during the 2015 call for topics are available at: https://www.ippc.int/en/core-activities/calls-topics/

[44] Meeting report not yet posted

AGENDA ITEM	DOCUMENT NO.	PRESENTER
9.3. Technical Panel for Diagnostic Protocols (TPDP) ❖ TPDP meeting reports ○ 2015-06 face-to-face ○ 2015-09 virtual, ○ 2015-11 virtual, ○ 2016-03 virtual ❖ Update on activities of the TPDP	IPP link to TPDP meeting reports 19_SC_2016_May	MOREIRA
9.4. Technical Panel on Pest Free Areas and Systems Approaches for Fruit Flies (TPFF) ❖ TPFF meeting report (2015-10 face-to-face) ❖ Update on activities of the TPFF ❖ Reorganization of the IPPC fruit fly standards and minor technical updates	IPP link to TPFF meeting report 17_SC_2016_May 05_SC_2016_May (including Attachments 1-6)	MOLLER MOLLER MONTEALAGRE/ CARDOSO PEREIRA
9.5. Technical Panel on Forest Quarantine (TPFQ) ❖ TPFQ meeting reports ○ 2015-06 virtual, ○ 2015-10 virtual, ○ 2016-02 virtual ❖ Update on activities of the TPFQ	IPP link to TPFQ meeting reports 15_SC_2016_May	LARSON
10. SC recommendations for CPM-12 (2017) decisions and discussions (including proposals for discussions on concepts and implementation issues related to draft or adopted standards, special topics session and side events)		Chairperson
11. Agenda items deferred to future SC Meetings		Chairperson
12. Review of the standard setting calendar	Link to the IPP calendar	HOWARD
13. Other business		Chairperson
14. Date and venue of the next SC Meeting		GERMAIN
15. Evaluation of the meeting process	Link to survey monkey[45]	Chairperson
16. Adoption of the report		Chairperson
17. Close of the meeting		Chairperson

[45] The link will be send to the SC members after the meeting

APPENDIX 2: Documents List

DOCUMENT NO.	AGENDA ITEM	DOCUMENT TITLE	LEVEL OF ACCESS	DATE POSTED / DISTRIBUTED
Draft ISPMs				
2006-029	4.1	Draft ISPM on International movement of wood	SC, NPPOs and RPPOs	2016-02-29
1994-001	5.1	Draft 2016 Amendments to ISPM 5 (Glossary of phytosanitary terms)	SC, NPPOs and RPPOs	2016-02-24
2008-005	5.5	Draft ISPM: International movement of cut flowers and foliage	SC, NPPOs and RPPOs	2016-02-24
2009-004	5.2	Revision of ISPM 6. National surveillance systems	SC, NPPOs and RPPOs	2016-02-24
2014-005	5.3	Draft ISPM on Requirements for the use of temperature Treatments as phytosanitary measures	SC, NPPOs and RPPOs	2016-02-24
Draft Specifications				
2015-003	7.1	Audit in the phytosanitary context (2015-003), Priority 2	SC, NPPOs and RPPOs	2016-04-20
2015-011	7.2	Proposed revision of ISPM 12: Phytosanitary certificates (2015-011), Priority 2	SC, NPPOs and RPPOs	2016-04-20
2015-010	7.3	Supplement to ISPM 11: Guidance on the concept of the likelihood of establishment component of a pest risk analysis for quarantine pests (2015-010), Priority 4	SC, NPPOs and RPPOs	2016-04-20
Documents				
01_SC_2016_May	1.3	Draft Agenda	SC, NPPOs and RPPOs	2016-05-10
02_SC_2016_May	2	Documents list	SC, NPPOs and RPPOs	2016-05-10
03_SC_2016_May	2	Participants list	SC, NPPOs and RPPOs	2016-05-05
04_SC_2016_May	4.1	Draft ISPM on International movement of wood (2006-029) – Stewards notes	SC	2016-02-29
05_SC_2016_May	9.4	Reorganization of the IPPC fruit fly standards and minor technical updates: • Attachment 01 - ISPM 26 with Annex 1 • Attachment 02 - Annex 2 of ISPM 26 • Attachment 03 - Annex 3 of ISPM 26 • Attachment 04 - Appendix 1 of ISPM 26 • Attachment 05 - ISPM 30 • Attachment 06 - ISPM 35	SC	2016-03-03

DOCUMENT NO.	AGENDA ITEM	DOCUMENT TITLE	LEVEL OF ACCESS	DATE POSTED / DISTRIBUTED
06_SC_2016_May	9.2	Ink amendments • Attachment 01 - “trading partner” • Attachment 02 - “quarantine facility” • Attachment 03 - “controlled area”/“protected area” • Attachment 04 - “practically free”,	SC	2016-03-29
07_SC_2016_May	5.5	Draft ISPM: International movement of cut flowers and foliage – 2008-005 – Stewards notes on potential implementation issues	SC	2016-03-29
08_SC_2016_May	5.3	Draft ISPM on Requirements for the use of temperature treatments as phytosanitary measures (2014-005) - Steward’s notes on potential implementation issues	SC	2016-03-29
09_SC_2016_May	5.2	Revision of ISPM 6 Guidelines for surveillance (2009-004) – Steward’s notes on potential implementation issues	SC	2016-03-29
10_SC_2016_May	5.5	International movement of cut flower and foliage (2008-005) – Stewards notes	SC	2016-03-31
11_SC_2016_May	3.1	Items arising from governance bodies: update from CPM-11 (2016)	SC	2016-04-19
12_SC_2016_May	8.3	Summary on polls and forums discussed on e-decision site	SC	2016-04-19
13_SC_2016_May	3.2	NROAG feedback and requests for the SC	SC	2016-04-19
14_SC_2016_May	3.3	Standards Setting Unit Update	SC	2016-04-19
15_SC_2016_May	9.5	Update on activities of the TPFQ	SC	2016-04-19
16_SC_2016_May	3.3	Briefings from IPPC Secretariat – Implementation Facilitation Unit	SC	2016-04-20
17_SC_2016_May	9.4	Update on activities of the TPFF	SC	2016-04-20
18_SC_2016_May	9.2	Update on activities of the TPG	SC	2016-04-21
19_SC_2016_May	9.3	Update on activities of the TPDP	SC	2016-04-21
20_SC_2016_May	9.1	Update on activities of the TPPT	SC	2016-04-21
21_SC_2016_May	3.1	Items arising from the CPM Bureau	SC	2016-04-21
22_SC_2016_May	6.1& 6.2	Update from CPM-11 (2016) and review of the *List of topics for IPPC standards*	SC	2016-04-21
23_SC_2016_May_Rev01	3.2	Relationship between the Standards Committee and the Capacity Development Committee	SC	2016-05-10
24_SC_2016_May	5.4	FAO legal service advice on the use of “certificates of compliance”	SC	2016-05-05
25_SC_2016_May	3.3	Tentative Date And Venues Of The 2016 IPPC Regional Workshops	SC	2016-05-06
26_SC_2016_May	3.1	Proposals for CPM discussions on implementation issues	SC	2016-05-10

IPP LINKS:	Agenda item
Link to Local Information Link to Standards Setting Staff	2
Link to Spec 61 Link to EWG Revision of ISPM 6 2015 Meeting Report	05.2
Link to Spec 62 Link to TPPT Sep 2015 Meeting Report Link to TPPT Dec 2015 Virtual Meeting Report	05.3
Link to the EWG Wood Handicrafts Sep 2015 Meeting Report Link to Spec 57	05.4
Link to Spec 56 Link to EWG Jun 2015 Cut Flowers Meeting Report	05.5
Link to Nov 2015 SC Meeting Report	08.1
Link to TPPT May 2015 Virtual Meeting Report Link to TPPT March 2016 Virtual Meeting Report Link to TPPT Dec 2015 Virtual Meeting Report Link to TPPT Sep 2015 Meeting Report	09.1
Link to Dec 2015 TPG Meeting Report	09.2
Link to TPDP Meeting Reports	09.3
Link to Oct 2015 TPFF Meeting Report	09.4
Link to TPFQ Meeting Reports	09.5
Link to IPP Calendar	12

APPENDIX 3: Participants list

	Region / Role	Name, mailing, address, telephone	Email address	Membership Confirmed[46]	Term expires
✓	Africa Member SC 7	**Ms Esther KIMANI** AG. Managing Director, Kenya Plant Health Inspectorate Service- KEPHIS P.O. BOX 49592-00100, Nairobi **KENYA** Tel: (+254) 020-6618000/0709891000, Mobile: (+254) 0722 226 239	ekimani@kephis.org; ekimaniw@gmail.com	CPM-9 (2014) 1st term / 3 years (2)	2017
✓	Africa Member SC Vice-Chair	**Ms Ruth WOODE** Deputy Director of Agriculture Plant Protection and Regulatory Services Directorate Ministry of Food and Agriculture P.O.Box M37 Accra **GHANA** Tel: (+233) 244507687	wooderuth@yahoo.com	CPM-8 (2013) 1st term / 3 years (2)	2016
✓	Africa Member	**Mr Moses Adegboyega ADEWUMI** Nigeria agricultural QUARANTINE SERVICE PLANT UNIT P. O .Box 10434 5th floor Federal Secretariat, Port Harcourt, Rivers State, **NIGERIA** Tel: +234 -8033913847, 8059607047	adegboyegamoses37@yahoo.com;	CPM-11 (2016) 1st term / 3 years (2)	2019
✓	Asia Member	**Ms Walaikorn RATTANADECHAKUL** Plant Quarantine Research Group Plant Protection Research and Development Office Department of Agriculture 50 Phaholyothin Rd., Ladyao Chatuchak Bangkok 10900 **KINGDOM OF THAILAND** Tel: +662 940 6670 ext 115, 116 Fax : +662 579 2145 Mobile: +668 5119 3392	walai4733@gmail.com;	CPM-10 (2015) 1st term / 3 years (0)	2018

[46] The numbers in parenthesis refers to FAO travel funding assistance. (0) No funding; (1) Airfare funding; (2) Airfare and DSA funding.

	Region / Role	Name, mailing, address, telephone	Email address	Membership Confirmed[46]	Term expires
✓	Asia Member	**Mr Lifeng WU** Division Director National Agro-Tech Extension and Service Centre Ministry of Agriculture No.20 Mai Zi Dian Street Chaoyang District, Beijing 100125 **CHINA** Phone: (+86) 10 59194524 Fax: (+86) 10 59194726	wulifeng@agri.gov.cn	CPM-10 (2015) 1st term / 3 years (0)	2018
✓	Asia Member SC-7	**Ms Thanh Huong HA** Deputy Director of Plant Quarantine Division, Plant Protection Department 149 Ho Dac Di Street Dong Da district Hanoi City **VIET NAM** Tel: (+844) 35331033 Fax: (+844) 35330043	ppdhuong@yahoo.com; ppdhuong@gmail.com;	CPM-7 (2012) CPM-10 (2015) 2nd term / 3 years (0)	2018
✓	Europe Member	**Ms Laurence BOUHOT-DELDUC** Seed and plant health section Sub-directorate for plant quality and protection Service for prevention of the sanitary risks of the primary production General directorate for food Ministry of agriculture, agro-food and forestry 251 rue de Vaugirard 75732 PARIS CEDEX 15 **FRANCE** Tel: +33 149558437 Fax: +33 149555949	laurence.bouhot-delduc@agriculture.gouv.fr ;	CPM-10 (2015) 1st term / 3 years (0)	2018
✓	Europe Member	**Mr Nicolaas Maria HORN** Senior Officer Plant Health, Netherlands Food and Consumer Product Safety Authority (NVWA) Division Plant and Nature National Plant Protection Organization (NPPO) P.O. Box 9102 6700 HC Wageningen **THE NETHERLANDS** Phone: (+31) 651998151	n.m.horn@minlnv.nl	CPM-9 (2014) 1st term/3 years (0)	2017

	Region / Role	Name, mailing, address, telephone	Email address	Membership Confirmed[46]	Term expires
✓	Europe Member	**Ms Hilde Kristin PAULSEN** Senior Advisor Norwegian Food Safety Authority, Felles Postmottak P.O.Box 383 N-2381 Brumunddal **NORWAY** Tel: (+47) 22 77 91 40 Fax: (+47) 64 94 44 10	Hilde.paulsen@mattilsynet.no	CPM-7(2012) CPM-10 (2015) 2nd term/3 years (0)	2018
✓	Latin America and Caribbean Member	**Mr Guillermo SIBAJA CHINCHILLA** Servicio Fitosanitario del Estado. MAG PO Box 1521-1200 San Jose **COSTA RICA** Tel: + (506)25493400 (Office) Tel: + (506) 8813-2061 (Mobile)	gsibaja@sfe.go.cr; gsibaja@yahoo.com	First SC meeting: May 2014 (1)	2016
✓	Latin America and Caribbean Member	**Ms Ana Lilia MONTEALEGRE LARA** Jefe de Organismos Internacionales de Protección Fitosanitaria Dirección General de Sanidad Vegetal SENASICA/SAGARPA Guillermo Boulevard Adolfo Ruiz Cortines no. 5010 Piso 4 Col. Insurgentes, Cuicuilco Ciudad de México **MEXICO** Tel: (+11) 52-55-5905-1000 ext 51341	ana.montealegre@senasica.gob.mx	CPM-7(2012) CPM-10 (2015) 2nd term/3 years (0)	2018
✓	Latin America and Caribbean Member SC-7	**Mr Ezequiel FERRO** Dirección Nacional de Protección Vegetal - SENASA Av, Paeso Colón 315 C.A. de Buenos Aires **ARGENTINA** Tel/Fax : (+5411) 4121-5091 (+5411) 4121-6657	eferro@senasa.gov.ar	CPM-8 (2013) 1st term / 3 years (0)	2016
✓	Latin America and Caribbean Member	**Mr. Álvaro SEPÚLVEDA LUQUE** Servicio Agrícola y Ganadero División de Protección Agrícola y Forestal Av. Presidente Bulnes 140, Santiago, **CHILE** Tel + 56-2 2345 1454	alvaro.sepulveda@sag.gob.cl;	CPM-10 (2015) 1st term / 3 years (0)	2018

	Region / Role	Name, mailing, address, telephone	Email address	Membership Confirmed[46]	Term expires
✓	Near East Member	**Ms Shaza OMAR** Phytosanitary Specialist Central Administration for Plant Quarantine Ministry of Agriculture 1 Nadi al Said Street Dokki, Giza, **EGYPT** Mobile: +201014000813 Fax: (+20) 237608574	shaza.roshdy@gmail.com;	First meeting: November 2015	2016
✓	Near East Member SC-7	**Mr Gamil Anwar Mohammed RAMADHAN** General Director of Plant Protection Department of Plant Protection Ministry of Agriculture and Irrigation Aden **REPUBLIC OF YEMEN** Tel: 00967770712209 00967733802618	dr.gamel_ramadan@yahoo.com; Anvar.gamel@mail.ru	CPM-8 (2013) 1st term / 3 years (2)	2016
✓	Near East Member	**Mr Kamaleldin Abdelmahmoud Amein BAKR** Plant Protection Directorate Khartoum North, Industrial Area P.O.BOX 14 **SUDAN** Phone: +249 913207800 Fax: +249 185 337462	kamalbakr91@yahoo.com	CPM-10 (2015) 1st term / 3 years (2)	2018
✓	North America Member SC-7	**Ms Marina ZLOTINA** Risk Analyst/Entomologist USDA-APHIS, Plant Protection and Quarantine (PPQ) 1730 Varsity Drive, Suite 300, Raleigh, NC 27606, **USA** Fax: 1 (919) 855-7599 Phone: 1 (919) 855-7530	Marina.A.Zlotina@aphis.usda.gov	CPM-10 (2015) 1st term / 3 years (0)	2018

	Region / Role	Name, mailing, address, telephone	Email address	Membership Confirmed[46]	Term expires
✓	North America Member	**Mr. Rajesh RAMARATHAM** Senior Specialist (International Phytosanitary Standards): International Phytosanitary Standards Section, Plant Protection Division, CFIA-ACIA 59 Camelot Drive, Ottawa ON K1A OY9 **CANADA** Tel: (+1) 613-773-7122 Fax: (+1) 613-773-7204	rajesh.ramarathnam@inspection.gc.ca;	CPM-11 (2016) 1st term / 3 years (0)	2019
✓	Pacific Member SC-7	**Mr John HEDLEY** Principal Adviser International Organizations Policy Branch Ministry for Primary Industries P.O. Box 2526 Wellington **NEW ZEALAND** Tel: (+64) 4 894 0428 Fax: (+64) 4 894 0742	john.hedley@mpi.govt.nz	CPM-11 (2016) 4th term / 3 years (0)	2019
✓	Pacific Member SC Chair	**Mr Jan Bart ROSSEL** Director International Plant Health Program Office of the Australian Chief Plant Protection Officer Australian Government Department of Agriculture **AUSTRALIA** Tel: (+61) 2 6272 5056 / 0408625413 Fax: (+61) 2 6272 5835	Bart.Rossel@agriculture.gov.au	CPM-6 (2011) CPM-9 (2014) 2nd term / 3 years (0)	2017

Others

	Region / Role	Name, mailing, address, telephone	Email address	Membership Confirmed	Term expires
✓	Observer / The Near East Plant Protection Organisation (NEPPO)	**Mr Mekki CHOUIBANI** Executive Director The Near East Plant Protection Batiment C INRA Angle Avenue JBNALOUAZZANE El Hassan II, Rabat **MOROCCO** Office: +212 537 704810/ +212 537 776 598 Cell: +212 73997808 Fax: +212 537707863	m.chouibani@neppo.org	N/A	N/A
✓	Observer / Japan	**Masahiro SAI** Senior Plant Quarantine officer Yokohama Plant Protection Station Ministry of Agriculture, Forestry and Fisheries (MAFF**)** **JAPAN** Tel**:** +81-3-3502-5978	saim@pps.maff.go.jp	N/A	N/A
✓	Observer / Australia	**Mr Bruce HANCOCKS** Assistant Director | International Plant Health Program Plant Health Policy | Biosecurity Plant Division Department of Agriculture and Water Resources GPO Box 858, Canberra ACT 2601 **AUSTRALIA** Tel: (+61) 02 6272 3826 Fax: (+61) 02 6272 5835	bruce.hancocks@agriculture.gov.au	N/A	N/A
✓	Observer / Brazil	**Mr Jesulindo NERY DE SOUZA JUNIOR** Technical Assistant Plant Health Department Ministry of Agriculture, Livestock and Food Supply Esplanada dos Ministérios Brasilia **BRAZIL**	Jesulindo.junior@agricultura.gov.br;	N/A	N/A
✓	IPPC Secretariat	**Mr Rui CARDOSO PEREIRA**	R.Cardoso-Pereira@iaea.org	N/A	N/A
✓	IPPC Secretariat	**Mr Brent LARSON** Standards Officer	Brent.Larson@fao.org	N/A	N/A
✓	IPPC Secretariat	**Stephanie DUBON** Support	Stephanie.Dubon@fao.org	N/A	N/A
✓	IPPC Secretariat	**Ms Adriana MOREIRA** Support	Adriana.Moreira@fao.org	N/A	N/A
✓	IPPC Secretariat	**Ms Eva MOLLER** Support	Eva.Moller@fao.org	N/A	N/A

	Region / Role	Name, mailing, address, telephone	Email address	Membership Confirmed	Term expires
✓	IPPC Secretariat	**Ms Céline GERMAIN** Support	Celine.Germain@fao.org	N/A	N/A
✓	IPPC Secretariat	**Ms Tanja LAHTI** Support	Tanja.Lahti@fao.org	N/A	N/A
✓	IPPC Secretariat	**Mr Martin FARREN** Support	Martin.Farren@fao.org	N/A	N/A
✓	IPPC Secretariat	**Mr Paul HOWARD** Support	Paul.Howard@fao.org	N/A	N/A

Memebrs who did not attend

Region / Role	Name, mailing, address, telephone	Email address	Membership Confirmed	Term expires
Africa Member	**Ms Nadia HADJERES** Directeur de la Protection des Végétaux et du Contrôle technique Ministère de l'Agriculture et du Développement Rural 12 Boulevard Colonel Amirouche Alger **ALGERIA** Tel: (+213) 023353173 Fax: (+213) 023533177	Nada.hadjeres@gmail.com; hadjeres.nadia@minagri.dz	CPM-10 (2015) 1st term / 3 years (1)	2018
Pacific Member	**Mr Pere KOKOA** National Agriculture Quarantine and Inspection Authority PO Box 741 Port Moresby NCD **PAPUA NEW GUINEA** Telephone: (+675) 3112100 Fax: (+675) 3251673	pkokoa@naqia.gov.pg;	CPM-10 (2015) 1st term / 3 years (2)	2018
Near East Member	**Ms Maryam Jalili MOGHADAM** First floof, NO. 20, Razaghmanesh Alley Rahi Moayer Street Fatemi Avenue, Tehran **IRAN** Phone: +98 21 23091139 Mobile: +98 912 6049255 Fax: + 98 21 22403197	marypaya@yahoo.com; jalili@ppo.ir	CPM-10 (2015) 1st term / 3 years (0)	2018

Europe Member SC-7	**Mr Piotr WLODARCZYK** Wojewodzki Inspektorat Ochrony Roslin I Nasiennictwa w Lublinie ul. Diamentowa 6 20-447 Lublin **POLAND** Tel: (+48) 81 7440326 Fax: (+48) 81 7447363	p.wlodarczyk@piorin.gov.pl	CPM-7(2012) CPM-10 (2015) 2nd term/3 years (0)	2018
Asia Member	**Mr HERMAWAN** Centre for Plant Quarantine and Bio-Safety Indonesian Agricultural Quarantine Agency Ministry of Agriculture Jl. Harsono RM. 3 Pasar Minggu, Jakarta Selatan 12550 **INDONESIA** Tel: + 62 21 7816482 Fax: + 62 12 7816482	Hermawan1961@gmail.com	CPM-8 (2013) 1st term / 3 years (1)	2016

APPENDIX 4: Framework for Standards and Implementation

Adopted by CPM-11 (2016); Updated 2016-05-13 by SC May 2016.

LEGEND

Red text: indicates gaps for new topics, new revisions to adopted ISPMs that are not already on the *List of topics for IPPC standards* or gaps for other guidance.

Underlined text: indicates topics on the *List of topics for IPPC standards* for revisions to adopted ISPMs (topic number in brackets)

Bolded text: indicates topics on the *List of topics for IPPC standards* for new ISPMs (topic number in brackets) or guidance being drafted

Adopted ISPMs are listed with title and ISPM number.

ISPMs or proposed gaps that cover or should cover both conceptual issues and implementation issues in one standard are centred.

IPPC Area: GENERAL IPPC Strategic Objectives (SOs): A3, A4, B1, B2, B3, D2, D4			
	Concept standards - "what"	**Implementation standards - "how"**	**Other guidance**
1.	**Audit in the phytosanitary context (2015-003) (Priority 2)**	No gap.	
2.	No gap.	No gap.	Organization and provision of information on technical resources. Available guidance: Phytosanitary resource page (roster of experts, projects database, activities calendar, technical documents)
3.	No gap.	No gap.	Cooperation with other Organizations e.g. environmental. Available guidance: Memorandums of Understanding: Ozone Secretariat, CBD; Partnership paper (CPM 9/2014/21).

4.	No gap.	No gap.	Environmental protection and climate change e.g. surveillance of wild flora. Available guidance: Guide to implementation of phytosanitary standard in forestry; ICPM-7 decisions in relationship to Cooperation with the CBD: Threats to biodiversity by IAS)
5.	No gap.	No gap.	International cooperation between NPPOs, e.g. regional centres of expertise
6.	No gap.	No gap.	How standards are used in or relate to different areas (e.g. Market access, IAS, climate change)
7.	No gap.	No gap.	Advocacy for NPPO resource mobilisation

IPPC Area: GENERAL RIGHTS AND OBLIGATIONS IPPC SOs: A1, A2, B2, B3, B4, C3, D3, Y4			
	Concept standards - "what"	**Implementation standards - "how"**	**Other guidance**
8.	Elements of an effective NPPO e.g. training, engagement of stakeholders, competency (Priority 1)	No gap.	Elements of an effective NPPO e.g. training, engagement of stakeholders, competency. Available guidance: NPPO management (draft manual); PCE tool; Explanatory document (2005) on ISPM 20 *(Guidelines for a phytosanitary import regulatory system)* (includes appendix on rights, roles & responsibilities in relation to the IPPC, ISPMs and SPS))
9.	Revision: Pest reporting (ISPM 17) (Priority 2)		
10.	Revision: Guidelines on lists of regulated pests (ISPM 19) (Priority 2)		
11.	Guidelines for the notification of non-compliance and emergency action (ISPM 13)		
12.	National legislation requirements (Priority 4)	No gap.	
13.	No gap.	No gap.	International Cooperation between contracting parties. Available guidance **Stakeholder relations** (draft manual))

IPPC Area: GENERAL RIGHTS AND OBLIGATIONS IPPC SOs: A1, A2, B2, B3, B4, C3, D3, Y4			
	Concept standards - "what"	**Implementation standards - "how"**	**Other guidance**
14.	No gap.	No gap.	Elements of an effective RPPO. Available guidance: Procedure for the recognition of new RPPOs; ICPM-4 (2002); Role and functions of the Technical Consultation among RPPOs ICPM-5 (2003)
15.	No gap.	No gap.	Information exchange. Available guidance: Recommendation information exchange (ICPM 2/1) ; Role of IPPC contact points (CPM 1/1)
16.	No gap.	No gap.	Pest reporting. Available guidance: Explanatory document (2005) on ISPM 17 *(Pest reporting)*. Regulated pest lists clarification of terminology and its use in ISPM 19.
17.	No gap.	No gap.	Guidelines for the revision of national phytosanitary legislation – FAO Establishing an NPPO (manual), establishment of an NPPO (training kit)

IPPC Area: PRINCIPLES AND POLICIES (interpretation of the Convention) IPPC SOs: B2, B3, C3, D1, D3			
	Concept standards - "what"	**Implementation standards - "how"**	**Other guidance**
18.	Phytosanitary principles for the protection of plants and the application of phytosanitary measures in international trade (ISPM 1)	No gap.	Undue delay and prompt action, Operation of a NPPO manual, Operation of a NPPO (training kit)

19.	Glossary of phytosanitary terms (ISPM 5) Terminology of the Convention on Biological Diversity in relation to the Glossary of phytosanitary terms (ISPM 5 – Appendix 1)	No gap.	Available guidance: Annotated Glossary: Explanatory document (2013) on ISPM 5 *(The Glossary of phytosanitary terms)*
20.	Efficacy of measures (Priority 4)	No gap.	Efficacy of measures
21.	No gap.	Recognition of pest free areas and areas of low pest prevalence (ISPM 29)	Technical Justification including reliability of scientific information
22.	Guidelines for the determination and recognition of equivalence of phytosanitary measures (ISPM 24)		Available guidance: **Equivalence** (draft manual)
23.	**Authorization of entities other than national plant protection organizations to perform phytosanitary actions (2014-002)** (Priority 2)	No gap.	
24.	No gap.	No gap.	Appropriate level of protection
25.	No gap.	No gap.	State of plant protection in the world

IPPC Area: PEST STATUS **IPPC SOs: A1, A2, B1**			
	Concept standards - "what"	**Implementation standards - "how"**	**Other guidance**
26.	Determination of pest status in an area (ISPM 8) (Priority 1)		
27.	Revision: Regulated non-quarantine pests: concept and application (ISPM 16), to broaden to pests and clarify the concepts related to quarantine pests, RNQP and pests of national concern (Priority 2)	No gap.	Available guidance: IPPC coverage of aquatic plants (CPM recommendation CPM-9/2014/01); GMOs, Biosafety and Invasive Species: ICPM 3 (2001) decision

IPPC Area: PEST STATUS IPPC SOs: A1, A2, B1			
	Concept standards - "what"	**Implementation standards - "how"**	**Other guidance**
	Guidelines on the interpretation and application of the concept of official control for regulated pests (ISPM 5 - Supplement 1)		
28.	Host and non host status (Priority 3)	Determination of host status of fruit to fruit flies (Tephritidae) (ISPM 37)	
29.	Guidelines for surveillance (ISPM 6) (Priority 1)		
30.	No gap.	Specific guidance on surveillance for a pest or a group of pests (Priority 3)	Guidance on surveillance for a pest or a group of pests. Available guidance: **Surveillance** (manual), Technical resources (manuals, standard operating procedures, public outreach materials, projects, etc.) on general and specific pest surveillance available on phytosanitary.info
31.	Requirements for the establishment of pests free areas (ISPM 4) (Priority 4) Establishment of pest free areas for fruit flies (Tephritidae) (ISPM 26)		
32.	Requirements for the establishment of pest free places of production and pest free production sites (ISPM 10)		
33.	Requirements for the establishment of areas of low pest prevalence (ISPM 22)		
34.	No gap.	Specific guidance on PFA, PFPP and ALPP for a pest or a group of pests (Priority 4) Establishment of areas of low pest prevalence for fruit flies (ISPM 30) Control measures for an outbreak within a fruit fly-pest free area (ISPM 26 - Annex 2)	

IPPC Area: PEST RISK ANALYSIS IPPC SOs: C2, C3, B2, B3, B4			
	Concept standards - "what"	**Implementation standards - "how"**	**Other guidance**
35.	Framework for pest risk analysis (ISPM 2) **Supplement on Guidance on the concept of the likelihood of establishment component of a pest risk analysis for quarantine pests (2015-010) to ISPM 11 (*Pest risk analysis for quarantine pests)* (Priority 4)**	Pest risk analysis for quarantine pests (ISPM 11) Pest risk analysis for regulated non-quarantine pests (ISPM 21) Categorization of commodities according to their pest risk (ISPM 32) Guidelines for the export, shipment, import and release of biological control agents and other beneficial organisms (ISPM 3) Guidance on climate change (supplement to ISPM 11) (Priority 3)	Commodity and host pest lists Available guidance: **PRA awareness toolkit** (proposed manual); PRA training (manual and eLearning)
36.	Revision and combination of PRA standards (including ISPM 2, 11 and 21) (priority 4)		Commodity and host pest lists
37.	**Guidance on pest risk management (2014-001)** (Priority 2)	Specific guidance on pest risk management for pests or a group of pests (Priority 3)	
38.	Risk communication (Priority 3)		
39.	Guidelines on the understanding of potential economic importance and related terms including reference to environmental considerations (ISPM 5 - Supplement 2)	Economic analysis in PRA (Priority 2)	
40.	Diversion from intended use (Priority 2? to be determined) (concept standard or supplementary document)	No gap.	Diversion from intended use

IPPC Area: PEST MANAGEMENT IPPC SOs: A1, A2, B1, B2, B4, C2, D1			
	Concept standards - "what"	**Implementation standards - "how"**	**Other guidance**
41.	Management of regulated pests (Priority 4)	No gap.	**CDC document on phytosanitary treatments** (draft manual)
42.	No gap.	No gap.	Pest management options
43.	Contingency planning and emergency response (Priority 1)	No gap.	
44.	No gap.	**Criteria for treatments for wood packaging material in international trade (2006-010) (draft annex to ISPM 15)** (Priority 2) **Revision of annex 1 and 2 of ISPM 15 (Inclusion of the Phytosanitary treatment *Sulphuryl fluoride fumigation of wood packaging material* (2006-010A) and *Revision of dielectric heating section (*2006-010B).**	Available guidance: Replacement of MeBr (CPM 3/1)
45.	Phytosanitary treatments for regulated pest (ISPM 28 and annexes)	Non-commodity specific phytosanitary treatments for regulated pests (e.g. soil drench, sterilization) (Annexes to ISPM 28) (Priority 4)	Available guidance: Explanatory document (2006) on ISPM 18 *(Guidelines on the use of irradiation as a phytosanitary treatment)*
46.	Guidelines for the use of irradiation as a phytosanitary measure (ISPM 18) (2014-007) (Priority 3)		
47.	No gap.	**Requirements for the use of fumigation as a phytosanitary measure** (2014-004) (Priority 1)	
48.	No gap.	**Requirements for the use of temperature treatments as a phytosanitary measure** (2014-005) (Priority 1)	
49.	No gap.	**Requirements for the use of modified atmosphere treatments as a phytosanitary measure** (2014-006) (Priority 2)	

IPPC Area: PEST MANAGEMENT IPPC SOs: A1, A2, B1, B2, B4, C2, D1			
	Concept standards - "what"	**Implementation standards - "how"**	**Other guidance**
50.	No gap.	**Requirements for the use of chemical treatments as a phytosanitary measure** (2014-003) (Priority 3)	
51.	Guidelines for pest eradication programmes (ISPM 9)		
52.	No gap.	Phytosanitary procedures for fruit fly (Tephritidae) management (Annex 3 of ISPM 26)	
53.	Integrated measures plants for planting (ISPM 36)		
54.	Systems approach (ISPM 14) Clarification on the concepts of integrated measures and systems approach (Priority 4)	Pest free potato (Solanum spp.) micropropagative material and minitubers for international trade (ISPM 33) Systems approach for pest risk management of fruit flies (Tephritidae) (ISPM 35) Specific guidance on systems approaches for commodities or pests (Priority 4)	

IPPC Area: PHYTOSANITARY IMPORT & EXPORT REGULATORY SYSTEMS IPPC SOs: A3, B4, C1, C2, C3, D3			
	Concept standards - "what"	**Implementation standards - "how"**	**Other guidance**
55.	Phytosanitary certification system (ISPM 7)	Electronic phytosanitary certificates, information on standard XML schemes and exchange mechanisms (ISPM 12 - Appendix 1) Focused revision of ISPM 12 *(Phytosanitary certificates)* (2015-011) (Priority 2)	Available guidance: e-Phyto (proposed system), **Import verification manual, export verification manual**

IPPC Area: PHYTOSANITARY IMPORT & EXPORT REGULATORY SYSTEMS IPPC SOs: A3, B4, C1, C2, C3, D3			
	Concept standards - "what"	**Implementation standards - "how"**	**Other guidance**
56.	Consignments in transit (ISPM 25)		Available guidance: **Transit** (proposed manual)
57.	No gap.	Guidelines for the export, shipment, import and release of biological control agents and other beneficial organisms (ISPM 3) Phytosanitary treatments for regulated pests (ISPM 28)	Available guidance: **Phytosanitary treatments based on historical evidence** (Position paper-TPPT draft)
58.	Guidelines for a phytosanitary import regulatory system (ISPM 20)		Available guidance: Explanatory document (2005) on ISPM 20 (*Guidelines for a phytosanitary import regulatory system*)
59.		Guidelines for a phytosanitary import regulatory system (ISPM 20) **Use of specific import authorization (2008-006) (ISPM 20, new annex)** (Priority 4)	
60.	No gap.	Guidelines for inspection (ISPM 23)	
61.	Methodologies for sampling of consignments (ISPM 31)		Available guidance: Explanatory document (2009) on ISPM 31 (*Methodologies for sampling of consignments*)
62.	No gap.	Design and operation of post-entry quarantine stations for plants (ISPM 34)	
63.	No gap.	No gap.	Dispute settlement manual
64.	**Phytosanitary pre-import clearance (2005-003)** (Priority 3)	No gap.	
65.	No gap.	No gap.	Traceability **Proposed Traceback Guidance;** Market access (manual)

IPPC Area: PHYTOSANITARY IMPORT & EXPORT REGULATORY SYSTEMS IPPC SOs: A3, B4, C1, C2, C3, D3			
	Concept standards - "what"	**Implementation standards - "how"**	**Other guidance**
66.	No gap.	No gap.	Pathways
67.	No gap.	**Minimizing pest movement by air containers and aircrafts (2008-002)** (Priority 3)	
68.	No gap.	**International movement of cut flowers and foliage (2008-005)** (Priority 4)	
69.	No gap.	**Safe handling and disposal of waste with potential pest risk generated during international voyages (2008-004)** (Priority 2)	
70.	No gap.	**International movement of growing media in association with plants for planting (2005-004)** (Priority 1)	
71.	No gap.	**Minimizing pest movement by sea containers (2008-001)** (Priority 1)	Available guidance: CPM Recommendation on sea containers (CPM-10/2015/1)
72.	No gap.	**International movement of grain (2008-007)** (Priority 1)	Available guidance: Internet trade (e-commerce) in plants and other regulated articles (CPM recommendation CPM-9/2014/2)
73.	No gap.	**Guidelines for regulating wood packaging material in international trade (ISPM 15)** (Revision to include fraudulent use) (Priority 2)	Available guidance: Explanatory document (2014) on ISPM 15 (*Guidelines for regulating wood packaging material in international trade*); **Dielectric heat treatment** (draft manual); Quick guide to Dielectric heating
74.	No gap.	**International movement of used vehicles, machinery and equipment (2006-004)** (Priority 3)	
75.	No gap.	**International movement of seeds (2009-003)** (Priority 1)	
76.	No gap.	**International movement of wood (2006-029)** (Priority 1)	

IPPC Area: PHYTOSANITARY IMPORT & EXPORT REGULATORY SYSTEMS IPPC SOs: A3, B4, C1, C2, C3, D3			
	Concept standards - "what"	**Implementation standards - "how"**	**Other guidance**
77.	No gap.	**International movement of wood products and handicrafts made from wood (2008-008)** (Priority 2)	

IPPC Area: DIAGNOSTICS IPPC SOs: A1, B1, B4			
	Concept standards - "what"	**Implementation standards - "how"**	**Other guidance**
78.	Diagnostic protocols for regulated pests (ISPM 27)	Annexes to Diagnostic protocols for regulated pests (ISPM 27)	**Guide to delivering Phytosanitary Diagnostic Services (manual)**
79.	No gap.	Requirements for diagnostics (Priority 2)	
80.	No gap.	No gap.	International or regional cooperation for diagnostics (e.g. Regional centres of expertise)

APPENDIX 5: *International movement of wood* (2006-029)

Status box	
This is not an official part of the standard and it will be modified by the IPPC Secretariat after adoption.	
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Steward history	2006-05 SC Mr Greg WOLFF (CA, Lead Steward) 2007-11 SC Mr Christer MAGNUSSON (NO, Assistant Steward) 2009-11 SC Ms Marie-Claude FOREST (CA, Lead Steward) 2009-11 SC Mr Greg WOLFF (CA, Assistant Steward) 2013-05 SC Ms Marie-Claude FOREST (CA, Lead Steward) 2013-05 SC Mr D.D.K. SHARMA (IN, Assistant Steward) 2016-05 SC Mr Rajesh RAMARATHAM (CA, Lead Steward)
Notes	2014-11 Edited (AF/BL/RR)

	Revised definition of the Glossary term “wood (as a commodity class)” was adopted by CPM-11 (2016)

CONTENTS

(To be inserted)

INTRODUCTION

Scope

This standard provides guidance for the assessment of the pest risk of wood and describes phytosanitary measures which may be used to reduce the risk of introduction and spread of quarantine pests associated with the international movement of wood, in particular those that infest trees.

This standard covers wood commodities such as: (1) round wood and sawn wood (with or without bark); and (2) materials from the mechanical processing of wood such as wood chips, sawdust, wood wool and wood residue (all with or without bark). This standard covers wood of gymnosperms and angiosperms (i.e. dicotyledons and some monocotyledons, such as palms) but not bamboo.

Wood packaging material is covered within the scope of ISPM 15 (*Regulation of wood packaging material in international trade*) and therefore is not covered in this standard.

Products manufactured from wood (such as furniture) and wooden handicrafts are not covered in this standard.

Wood may also carry contaminating pests, however, they are not covered under this standard.

References

The present standard also refers to other International Standards for Phytosanitary Measures (ISPMs). ISPMs are available on the IPP at https://www.ippc.int/core-activities/standards-setting/ispms.

CPM. 2008. Replacement or reduction of the use of methyl bromide as a phytosanitary measure. CPM Recommendation. *In Report of the Third Session of the Commission on Phytosanitary Measures.* Rome, 7–11 April 2008, Appendix 6. Rome, IPPC, FAO.

FAO. 2009. *Global review of forest pests and diseases.* FAO Forestry Paper 156. Rome. 222 pp.

Definitions

Definitions of phytosanitary terms can be found in ISPM 5 (*Glossary of phytosanitary terms*).

Outline of Requirements

Pest risk varies among wood commodities such as round wood, sawn wood and wood material resulting from mechanical processing depending on the level of processing that the wood has undergone. This standard provides guidance on the pest risk associated with the wood commodities and the phytosanitary measures which may be applied to manage the pest risk.

Pest risk analysis (PRA) undertaken by the national plant protection organization (NPPO) of the importing country should provide the technical justification for phytosanitary import requirements for quarantine pests associated with the international movement of wood.

Options for phytosanitary measures for managing the pest risk related to wood, including bark removal, treatment, chipping and inspection are described in this standard.

The NPPO of the importing country may require the removal of bark (to produce debarked or bark-free wood) as a phytosanitary import requirement.

BACKGROUND

Wood may carry pests that had infested trees from which the wood was produced. These pests may then infest trees in the PRA area. This is the pest risk primarily dealt with in this standard.

Wood may also become infested after harvesting. The pest risk in such cases is for pests that infest harvested wood, rather than for pests infesting trees.

Pests that have been shown historically to move with wood in international trade and establish in new areas include: insects that oviposit on bark (e.g. Lymantriidae), wood wasps, wood borers, wood-inhabiting nematodes, and certain fungi with dispersal stages that can be transported on wood. Therefore, wood (with or without bark) moved in international trade is a potential pathway for the introduction and spread of quarantine pests.

Wood is commonly moved as round wood, sawn wood and mechanically processed wood. The pest risk presented by a wood commodity depends on a range of characteristics, such as the commodity's type, the level of processing and the presence or absence of bark, and on factors such as the wood's origin, the species, the intended use and any treatment applied to the wood.

Wood is usually moved internationally to a specific destination and for a specific intended use. However, wood in trade is increasingly moved by intermediaries, whose practices of handling commodities may complicate the identification of its origin and intended use. Given the frequency of association between key pest groups and key wood commodities, it is important to provide guidance on phytosanitary measures. This standard provides guidance for effectively managing the risk of quarantine pests and for harmonizing the use of appropriate phytosanitary measures.

The FAO publication *Global review of forest pests and diseases* (2009) provides information on some of the major forest pests of the world.

To differentiate wood from bark as used in this standard, a drawing and photographs of a cross-section of round wood are provided in Appendix 1.

IMPACT ON BIODIVERSITY AND THE ENVIRONMENT

Implementation of this standard is considered to reduce significantly the likelihood of introduction and spread of quarantine pests thereby contributing to tree health and the protection of forest biodiversity. Certain treatments may have a negative impact on the environment and countries are encouraged to promote the use of phytosanitary measures that are environmentally acceptable.

REQUIREMENTS

1. Pest Risk Related to Wood Commodities

The pest risk of the commodities addressed in this standard varies depending on the wood's origin, species and characteristics, the level of processing or the treatment the wood has undergone, and the presence or absence of bark.

This standard describes the general pest risk related to each wood commodity by indicating the major pest groups associated with it. Although the wood commodities described may be commonly infested with certain pest groups, the pest risk actually presented may depend on factors such as species, size, moisture content and intended use of the wood, and pest status at the origin and destination.

Phytosanitary measures should not be required without appropriate technical justification based on PRA (as described in ISPM 2 (*Framework for pest risk analysis*) and ISPM 11 (*Pest risk analysis for quarantine pests*)), taking into account:

- the pest status where the wood originated
- the degree of processing before export
- the ability of a pest to survive on or in the wood
- the intended use of the wood
- the likelihood of establishment of a pest in the PRA area, including the presence of a vector if needed for dispersal of the pest.

Wood may be infested by pests present in the area of origin at the time of growing or harvesting. Several factors can influence a pest's ability to infest trees or wood. These factors can also affect the ability of the pest to survive on or in the harvested wood. Such factors are: outbreaks of pests in the area of origin, forestry management practices, conditions during transportation and storage time, place and conditions and treatments applied to the wood once felled. These factors should be considered when evaluating the probability of introduction and spread of quarantine pests.

In general, the greater the level of processing or treatment of the wood after harvest, the greater the reduction in pest risk. However, it should be noted that processing may change the nature of the pest risk. For example, chipping reduces the presence of certain insect pests but increases in surface area of the wood may facilitate its colonization by fungi. Pests that are associated with specific wood tissues (e.g. bark, outer sapwood) pose virtually no pest risk when the tissues that they inhabit are removed during processing. The pest risk associated with the removed material should be assessed separately if it is to be moved in trade as another commodity (e.g. cork, firewood, bark mulch).

The pest groups identified in Table 1 and Table 2 are known to move with wood commodities and have shown the potential to establish in new areas.

Table 1. Insect groups that may be associated with the international movement of wood

Pest group	Examples within the pest group
Bark beetles	Scolytinae, Molytinae
Wood flies	Pantophthalmidae
Wood-boring beetles	Anobiidae, Bostrichidae Cerambycidae, Curculionidae, Buprestidae, Oedemeridae
Wood-boring moths	Cossidae, Sesiidae Hepialidae
Wood wasps	Siricidae
Termites and carpenter ants	Rhinotermitidae, Kalotermidae, Formicidae
Non-wood-boring moths	Lymantriidae, Lasiocampidae
Aphids and adelgids	Adelgidae, Aphididae
Scales	Diaspididae

Table 2. Groups of fungi and nematodes that may be associated with the international movement of wood

Pest group	Examples within the pest group
Rust fungi	Cronartiaceae, Pucciniaceae
Pathogenic decay fungi	*Heterobasidion* spp.
Canker fungi	Cryphonectriaceae
Pathogenic stain fungi	Ophiostomataceae
Vascular wilt fungi	Nectriaceae
Nematodes	*Bursaphelenchus xylophilus*, *B. cocophilus*

There are some pest groups such as water moulds, bacteria, viruses and phytoplasmas known to be associated with wood which are unlikely to establish in new areas.

1.1 Round wood

Most round wood, with or without bark, is moved internationally for subsequent processing at destination. The wood may be sawn for use as construction material (e.g. as timber framing) or it may be used to produce wood materials (e.g. wood chips, bark chips, pulp, firewood, biofuels and manufactured wood products).

Removing bark from round wood reduces the probability of introduction and spread of some quarantine pests. The level of reduction depends on the degree to which the bark and underlying wood have been removed and on the pest group. For example, complete bark removal (i.e. to produce bark-free wood) will greatly reduce the risk of infestation of most bark beetles in the wood. However, bark removal is unlikely to influence the incidence of deep wood borers, some species of fungi and wood-inhabiting nematodes.

The pest risk of round wood is greatly influenced by the total amount of remaining bark on the debarked wood which in turn is greatly influenced by the shape of the round wood, the machinery used to remove the bark and to a lesser extent, by the species of tree. In particular, the widened areas at the base of a tree, especially where large root buttresses are present, and around branch nodes are preferred locations for beetle infestation and oviposition.

Pest groups likely to be associated with round wood are listed in Table 3.

Table 3. Pest groups likely to be associated with round wood

Commodity	Pest groups likely to be associated with round wood	Pest groups less likely to be associated with round wood
Round wood with bark	Bark beetles, wood flies, wood-boring beetles, wood-boring moths, wood wasps, termites and carpenter ants, non-wood-boring moths, aphids and adelgids, scales, rust fungi, pathogenic decay fungi, canker fungi, pathogenic stain fungi, vascular wilt fungi, nematodes	
Round wood without bark	Wood flies, wood-boring beetles, wood-boring moths, wood wasps, termites and carpenter ants, pathogenic decay fungi, canker fungi, pathogenic stain fungi, vascular wilt fungi, nematodes	Bark beetles[1], non-wood-boring moths, aphids and adelgids, scales, rust fungi

[Footnote 1] Some bark beetles have life stages that are found in the wood below the surface of the bark and cambium and, therefore, may be present after debarking or complete bark removal.

1.2 Sawn wood

Most sawn wood, with or without bark, is moved internationally for use in building construction, in the manufacture of furniture, and for the production of wood packaging material, wood lathing, wood stickers, wood spacers, railway sleepers (ties) and other constructed wood products. Sawn wood may include fully squared pieces of wood without bark or partially squared wood with one or more curved edges that may or may not include bark. The thickness of the piece of sawn wood may affect the pest risk.

Sawn wood from which some or all bark has been removed presents a much lower pest risk than sawn wood with bark. The pest risk of bark-related organisms is generally lower the smaller the bark piece remaining on the wood.

The pest risk of bark-related organisms is also dependent on the moisture content of the wood. Wood from freshly harvested living trees has a high moisture content that decreases over time to ambient moisture conditions, which are less likely to allow bark-related organisms to survive. Further information on addressing pest risks through a combination of treatment and moisture reduction is provided in Appendix 2.

Pest groups likely to be associated with sawn wood are listed in Table 4.

Table 4. Pest groups likely to be associated with sawn wood

Commodity	Pest groups likely to be associated with sawn wood	Pest groups less likely to be associated with sawn wood
Sawn wood with bark	Bark beetles, wood flies, wood-boring beetles, wood-boring moths, wood wasps, termites and carpenter ants, rust fungi, pathogenic decay fungi[2], canker fungi, pathogenic stain fungi, vascular wilt fungi, nematodes	Non-wood-boring moths, aphids and adelgids, scales[3]
Sawn wood without bark	Wood flies, wood-boring beetles, wood-boring moths, wood wasps, termites and carpenter ants, pathogenic decay fungi[2], canker fungi, pathogenic stain fungi, vascular wilt fungi, nematodes	Bark beetles, non-wood-boring moths, aphids and adelgids, scales[3], rust fungi

[Footnote 2] Although pathogenic decay fungi may be present in sawn wood, most present a low pest risk because of the intended use of the wood and the limited potential for the fungi to produce spores on the wood.

[Footnote 3] Many species are removed during the squaring of wood, but remaining bark may present sufficient surface area for some species to survive after sawing.

1.3 Wood materials produced from mechanical processing of wood (excluding sawing)

Mechanical processes that reduce the size of wood pieces reduce the pest risk (e.g. wood chips) or render the wood pieces free from pests (e.g. sawdust, wood wool).

1.3.1 Wood chips

The pest risk of wood chips varies with their size and uniformity, and also with their method of storage. Pest risk is reduced when bark is removed and the chip size is below 3 cm in two dimensions (as described in Table 4 and section 2.3). The physical process of wood chipping is in itself lethal to some insect pests, particularly when a small chip size is produced. Chip size varies according to industry specifications and is usually related to the intended use of the chips (e.g. biofuel, paper production, horticulture, animal bedding, etc.). Some wood chips are produced in accordance with strict quality standards to minimize bark and fines (very small particles)

Wood chipping also provides conditions conducive for certain insect survival. Some insects are attracted to the chemicals given off by cut wood and may therefore infest freshly cut wood chips.

Depending on size, insect pests normally be found under the bark may be present in wood chips with bark. Many species of pathogenic decay fungi, canker fungi and nematodes may also be present in wood chips with or without bark. Spore dispersal of wood-inhabiting rust fungi would be very unlikely after the production of chips.

1.3.2 Wood residue

Wood residue is normally considered to present a high pest risk because it varies greatly in size and may or may not include bark. Wood residue is generally a waste by-product of wood being mechanically

processed during production of a desired article; nevertheless, wood residue may be moved as a commodity.

Pest groups likely to be associated with wood chips and wood residue are listed in Table 5.

Table 5. Pest groups likely to be associated with wood chips and wood residue

Commodity	Pest groups likely to be associated with wood chips and wood residue	Pest groups less likely to be associated with wood chips and wood residue
Wood chips with bark and greater than 3 cm in two dimensions	Bark beetles, wood flies, wood-boring beetles, wood-boring moths, wood wasps, termites and carpenter ants, rust fungi[4], pathogenic decay fungi[4], canker fungi, pathogenic stain fungi, vascular wilt fungi, nematodes	Non-wood-boring moths, aphids and adelgids, scales
Wood chips without bark and greater than 3 cm in two dimensions	Wood flies, wood-boring beetles, wood-boring moths, wood wasps, termites and carpenter ants, pathogenic decay fungi[4], canker fungi, pathogenic stain fungi, vascular wilt fungi, nematodes	Bark beetles, non-wood-boring moths, aphids and adelgids, scales, rust fungi[4]
Wood chips with bark and less than 3 cm in two dimensions	Bark beetles, termites and carpenter ants, rust fungi[4], pathogenic decay fungi[4], canker fungi, pathogenic stain fungi, vascular wilt fungi, nematodes	Wood-boring beetles, non-wood-boring moths, aphids and adelgids, scales, wood flies, wood-boring moths, wood wasps
Wood chips without bark and less than 3 cm in two dimensions	Termites and carpenter ants, pathogenic decay fungi[4], canker fungi, pathogenic stain fungi, vascular wilt fungi, nematodes	Bark beetles, non-wood-boring moths, aphids and adelgids, scales, wood flies, wood-boring beetles, wood-boring moths, wood wasps, rust fungi[4]
Wood residue with or without bark	Bark beetles, wood flies, wood-boring beetles, wood-boring moths, wood wasps, termites and carpenter ants, non-wood-boring moths, aphids and adelgids, scales, rust fungi[4], pathogenic decay fungi[4], canker fungi, pathogenic stain fungi, vascular wilt fungi, nematodes	

[Footnote 4] Rust and pathogenic decay fungi may be present in consignments of wood chips or wood residue but are unlikely to present a **risk** for establishment or spread.

1.3.3 Sawdust and wood wool

Sawdust presents a lower pest risk. Only in certain cases may fungi and nematodes be associated with sawdust. Wood wool is considered to present a similar pest risk.

2. Phytosanitary Measures

The phytosanitary measures described in this standard should be required only if technically justified, based on PRA. Certain phytosanitary measures may be implemented to protect wood that has been

produced in pest free areas but that may be at risk of subsequent infestation (e.g. during storage and transportation).

The NPPO of the importing country may require limitations on the time frame for import. For example, the pest risk associated with round wood moved in trade may be managed by the NPPO specifying a certain time in which dispatch or import of a consignment may occur (e.g. during a time when a pest is inactive).

The NPPO of the importing country may require and monitor the application of specific methods of processing, handling and appropriate disposal of waste that reduce the pest risk from the wood after import.

The application of the phytosanitary measures listed below, may not prevent subsequent infestation by pests prior to dispatch., Various methods to prevent infestation after the application of a measure should be considered; for example, covering wood with tarpaulin for storage or using an enclosed conveyance.

The NPPO of the exporting country or importing country should verify the application and the effectiveness of phytosanitary measures before export or at the point of entry, respectively, in accordance with ISPM 20 *(Guidelines for a phytosanitary import regulatory system), ISPM 23 (Guidelines for inspection)* and ISPM 31 *(Methodologies for sampling of consignments)*.

As many pests associated with wood are specific to particular tree species or genera, phytosanitary import requirements are often accordingly species or genus specific. Therefore, the NPPO of the exporting country should verify that the wood in the consignment complies with phytosanitary import requirements related to species or genus.

The following are commonly used options for phytosanitary measures.

2.1 Removal of bark

Some quarantine pests are commonly found in or just beneath the bark. To reduce the pest risk, the NPPO of the importing country may require the removal of bark (to produce bark-free or debarked wood) as a phytosanitary import requirement and, in the case of debarked wood, the NPPO may set tolerance levels for remaining bark. Where bark remains with wood, treatments may be used to reduce the pest risk associated with bark.

2.1.1 Bark-free wood

The complete removal of bark from round wood and other wood commodities (i.e. to produce bark-free wood) physically removes a layer of material in which a large number of pests may develop, as well as eliminates large areas of uneven surface that provide concealment for other pests.

Bark removal eliminates pests found mostly on the surface of bark such as aphids, adelgids, scale insects, and non-wood-boring moths in some life stages. Moreover, bark removal eliminates most bark beetles and also prevents post-harvest infestation by other wood pests such as wood wasps and large wood borers (e.g. *Monochamus* spp.).

Where the NPPO of the importing country requires that wood be bark-free, the commodity should meet the definition of bark-free wood stated in ISPM 5 (see Appendix 1 for illustration of ingrown bark and bark pocket). In many cases, this wood may have evidence of cambium, which may appear as a brown discoloured tissue on the surface of the wood, but this should not be considered as the presence of bark and does not pose a risk for pests associated with bark. In general, verification of bark-free wood should simply confirm that there is no evidence of the layer of tissue above the cambium.

2.1.2 Debarked wood

The mechanical process used in the commercial removal of bark from wood does not usually result in the wood becoming bark-free.

When wood is debarked, pieces of bark may remain. Depending on the number and size of pieces remaining, pests associated with the bark (e.g. bark beetles, aphids, adelgids, scales) may be completely or partly removed.

Debarking to the tolerances prescribed below reduces the risk of bark beetles completing their life cycles in untreated wood.

Any number of visually separate and clearly distinct small pieces of bark may remain, if they are:

- - less than 3 cm in width (regardless of the length) or
- - greater than 3 cm in width, with the total surface area of an individual piece of bark less than 50 cm^2.

When prescribed as a phytosanitary import requirement by the NPPO of the importing country, the NPPO of the exporting country should ensure that these requirements for debarked wood have been met.

2.2 Treatments

Some treatment types may not be effective against all pests. Further guidance on treatments which may be used to address the pest risks of wood is provided in Appendix 2.

For all chemical treatments, the penetration depth and thus the efficacy varies with the application process (dosage, temperature, etc.), the presence or absence of bark on the wood, and the wood species and moisture content. The removal of bark often improves chemical treatment penetration and may reduce the incidence of infestation of treated wood.

Treatments accepted internationally, as found as annexes to ISPM 28 (*Phytosanitary treatments for regulated pests*) may be prescribed as phytosanitary import requirements for the import of some wood commodities.

Treatments should be applied under the supervision or authority of the NPPO of the exporting country to meet the phytosanitary import requirements. The NPPO of the exporting country should make arrangements to ensure that treatments are applied as prescribed and where appropriate should verify that wood is free of target pests by inspection or testing. Specific tools (e.g. electronic thermometers, gas chromatographs, moisture meters connected to recording equipment) may also be used to verify treatment application. Chemical pressure impregnation and chemical diffusion may leave specific colour stains on the surface of the wood.

Regardless of the treatment applied, the presence of live quarantine pests should be considered as non-compliance of the consignment, with the exception of irradiation, which may result in an inactivated but live pest. In addition, the finding of suitable indicator organisms or fresh frass, indicating treatment failure, may also be deemed non-compliance.

2.3 Chipping

The mechanical action of chipping or grinding wood can be effective in destroying most wood-dwelling pests. Reducing the chip size to a maximum of 3 cm in at least two dimensions may be used to address most insect pest risks. However, fungi, nematodes and small insects such as some Scolytinae or small Buprestidae, Bostrichidae or Anobiidae may continue to present a pest risk.

2.4 Inspection and testing

Inspection or testing may be used for the detection of specific pests associated with wood. Depending on the wood commodity, inspection may be used to identify specific signs or symptoms of pests. For example, inspection may be used to detect the presence of bark beetles, wood borers and decay fungi on round wood and sawn wood. Inspection may also be carried out at various points along the production process t determine if measures applied have been effective.

Where undertaken, inspection methods should enable the detection of any signs or symptoms of quarantine pests. The detection of certain other organisms may indicate treatment failure. Signs may include the fresh frass of insects, galleries or tunnels of wood borers, staining on the surface of the wood caused by fungi, and voids or signs of wood decay. Signs of wood decay include bleeding cankers, long discontinuous brown streaks on outer sapwood and outer sapwood discoloration, soft areas in the wood, unexplained swelling, resin flow on logs, and cracks, girdling and wounds in sawn wood. Where bark is present it may be peeled back to look for signs of insect feeding and galleries, and for staining or streaking of the wood underneath, which may indicate the presence of pests. Acoustic, sensory and other methods may also be used for detection. Further examination should be made to verify whether live quarantine pests or indicator organisms are present; for example, examination for living life stages of insects such as egg masses and pupae.

Testing may be used to verify the application or effect of other phytosanitary measures such as the application of treatments. Testing is generally limited to the detection of fungi and nematodes. For example determination of the presence of nematodes that are quarantine pests may be made using a combination of microscopy and molecular techniques on samples of wood taken from consignments.

Guidance on inspection and sampling is provided in ISPM 23 and ISPM 31.

2.5 Pest free areas and pest free places of production

Pest free areas (ISPM 4 (Requirements for the establishment of pest free areas); ISPM 8 (Determination of pest status in an area); ISPM 29 (Recognition of pest free areas and areas of low pest prevalence)) and pest free places of production (ISPM 10 (Requirements for the establishment of pest free places of production and pest free production sites)) may be established to manage the pest risk associated with wood. However, the use of pest free places of production may be limited to specific situations such as forest plantations located within agricultural or suburban areas.

2.6 Areas of low pest prevalence

Areas of low pest prevalence (ISPM 8; ISPM 22 (*Requirements for the establishment of areas of low pest prevalence*); ISPM 29) may be established to reduce the pest risk associated with the movement of wood. Biological control may be used as an option in achieving the requirements for an area of low pest prevalence.

2.7 Systems approaches

The pest risk of the international movement of wood may be managed effectively by developing systems approaches that integrate measures for pest risk management in a defined manner (ISPM 14 (*The use of integrated measures in a systems approach for pest risk management*)). Existing forest management systems, both pre- and post-harvest, including processing, storage and transportation may include activities such as site selection from pest free areas, inspection to ensure the wood is pest free, treatments and other measures which when integrated in a systems approach are effective in pest risk management.

Some of the pest risk associated with round wood (in particular that of deep wood borers and certain nematodes) is difficult to manage through the application of a single phytosanitary measure. In these situations, a combination of phytosanitary measures in a systems approach may be applied.

In accordance with ISPM 14, the NPPO of the importing country may agree with the NPPO of the exporting country to implement additional measures within its territory for transporting, storing or processing wood after import. For example, round wood with bark that may harbour bark beetles that are quarantine pests may be permitted to enter the importing country only during a period when the bark beetles are not active. Processing in the importing country to remove the pest risk would be required to occur before individuals develop to the active stage. Requirements that the wood be debarked and the bark or wood residue be used as a biofuel or otherwise destroyed before the active period of the beetles commences could be used to sufficiently prevent the risk of introduction and spread of the bark beetles that are quarantine pests.

The pest risk associated with fungi may be managed effectively through the application of appropriate harvesting measures (e.g. visual selection of wood free from decay) and the application of a surface fungicide.

3. Intended Use

The intended use of wood may affect its pest risk, because some intended uses (e.g. round wood as firewood, wood chips as biofuel or for horticulture) may increase the probability of introduction and spread of quarantine pests (ISPM 32 (*Categorization of commodities according to their pest risk*)). Therefore, intended use should be taken into account when assessing or managing pest risk associated with the international movement of wood.

4. Non-compliance

Relevant information on non-compliance and emergency action is provided in ISPM 20 and ISPM 13 (*Guidelines for the notification of non-compliance and emergency action*). The NPPO of the importing country should notify the NPPO of the exporting country in cases where live quarantine pests are found. NPPOs are also encouraged to notify other relevant cases of non-compliance as specified in ISPM 13.

This appendix is for reference purposes only and is not a prescriptive part of the standard.

APPENDIX 1: Illustrations of bark and wood

A drawing (Figure 1) and a photograph (Figure 2) of a cross-section of round wood and a photograph of sawn wood (Figure 3) are provided below to better differentiate wood and cambium from bark.

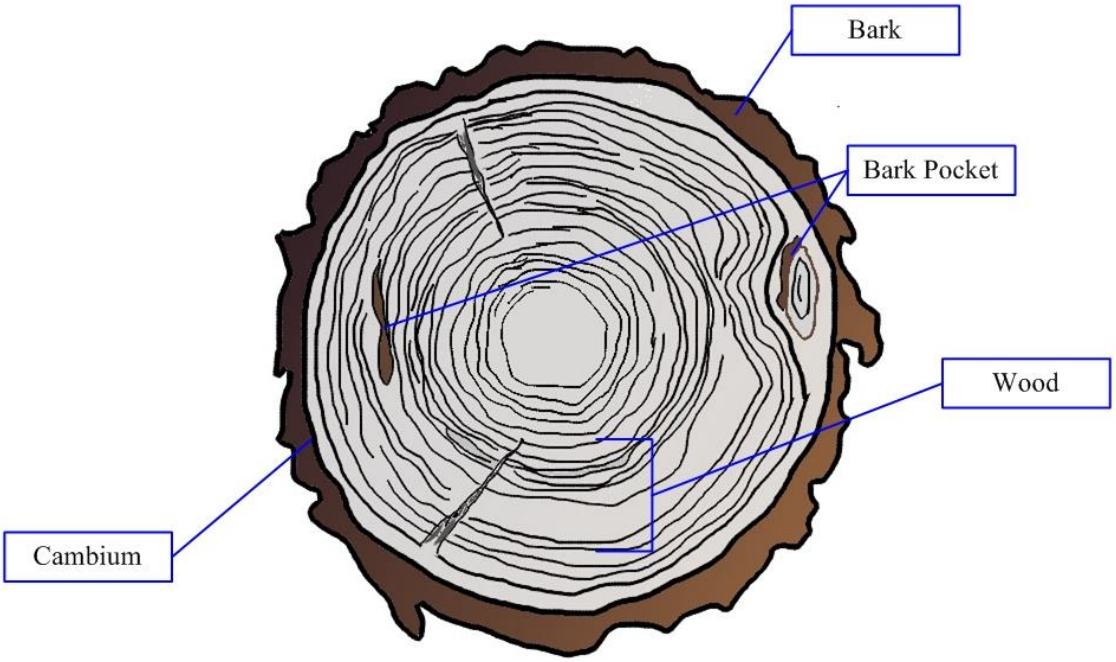

Figure 1. Drawing of a cross-section of round wood. Drawing courtesy Shane Sela, Canadian Food Inspection Agency (2016).

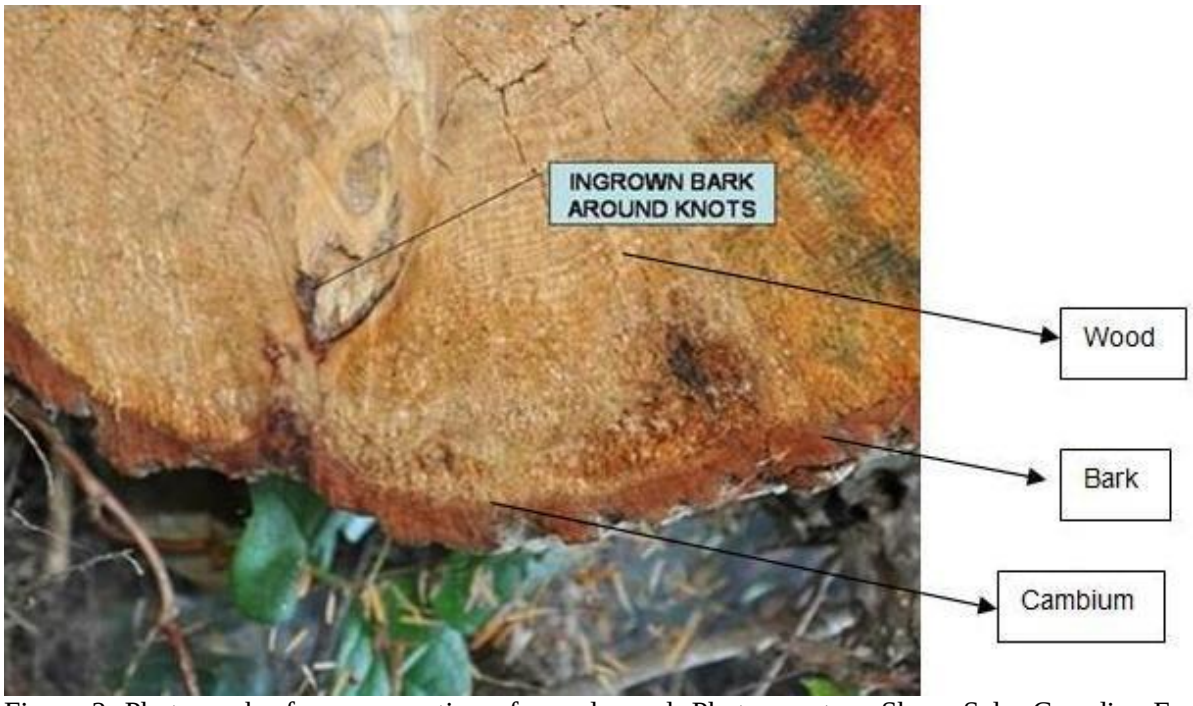

Figure 2. Photograph of a cross-section of round wood. Photo courtesy Shane Sela, Canadian Food Inspection Agency (2014).

Figure 3. Photograph of sawn wood. Photo courtesy Chuck Dentelbeck, Canadian Lumber Standards Accreditation Board (2014).

APPENDIX 2: Treatments

Fumigation

Fumigation may be used in controlling pests associated with wood.

Despite the proven effectiveness of some fumigants against certain pests, there are limitations to their use to reduce pest risk. Fumigants vary in their ability to penetrate the wood and some are therefore effective only against pests in, on or just beneath the bark. The penetration depth for some fumigants may be limited to about 10 cm from the wood surface. Penetration is greater in dry than in fresh-cut wood.

For some fumigants, the removal of bark before fumigation may improve the efficacy of the treatment.

Before selecting fumigation as a phytosanitary measure, NPPOs should take into account the CPM Recommendation Replacement or reduction of the use of methyl bromide as a phytosanitary measure (CPM, 2008).

Spraying or dipping

Spraying with or dipping in chemicals may be used in controlling pests associated with wood, excluding wood chips, sawdust, wood wool, bark and wood residue.

In the process of spraying or dipping, liquid or dissolved chemicals are applied to wood at ambient pressure. This treatment results in limited penetration into the sapwood. Penetration depends on the species of the wood, the kind of wood (sapwood or heartwood), and the properties of the chemical product. Both removal of bark and application of heat increase the depth of penetration into the sapwood. The active ingredient of the chemical product may not prevent the emergence of pests already infesting the wood. Protection of the treated wood from subsequent pest infestation depends on the protective layer of chemical product remaining intact. Post-treatment infestation by some pests (e.g. dry wood borers) may take place if the wood is further sawn after treatment and a portion of the cross-section has not been penetrated by the chemical product.

Chemical pressure impregnation

Chemical pressure impregnation may be used in controlling pests associated with wood, excluding wood chips, sawdust, wood wool, bark and wood residue.

The application of a preservative using vacuum, pressure or thermal processes results in a chemical product applied to the surface of the wood being forced deep into that wood.

Chemical pressure impregnation is commonly used to protect wood from infestation by pests after other treatments. It may also have some effect in preventing the emergence to the wood surface of pests that have survived treatment. The penetration of the chemical product into the wood is much greater than with spraying or dipping, but depends on the wood species and the properties of the chemical product. Penetration is generally throughout the sapwood and through a limited portion of the heartwood. Debarking or mechanical perforation of the wood may improve penetration of the chemical product. Penetration also depends on the moisture content of the wood. Drying wood before chemical pressure impregnation may also improve penetration. Chemical pressure impregnation is effective against some wood-boring insects. In some impregnation processes, the chemical is applied at a temperature sufficiently high to be equivalent to a heat treatment. The protection of the treated wood from subsequent infestation depends on the protective layer of the chemical product remaining intact. Post-treatment infestation by some pests (e.g. dry wood borers) may take place if the wood is sawn after treatment and a portion of the cross-section has not been penetrated by the chemical product.

Heat treatment

Heat treatment may be used in controlling pests associated with all wood commodities. The presence or absence of bark has no effect on the efficacy of heat treatment but should be taken into account if a heat treatment schedule specifies the maximum dimensions of the wood being treated.

The process of heat treatment involves heating wood to a temperature for a period of time (with or without moisture reduction) that is specific to the target pest. The minimum treatment time in the heat chamber necessary to reach the required temperature throughout the profile of the wood depends on the wood's dimensions, species, density and moisture content as well as on the capacity of the chamber and other factors. The heat may be produced in a conventional heat treatment chamber or by dielectric, solar or other means of heating.

The temperature required to kill pests associated with wood varies because heat tolerance varies across species. Heat-treated wood may still be susceptible to common moulds, particularly if moisture content remains high; however, mould should not be considered a phytosanitary concern.

Kiln-drying

Kiln-drying may be used for sawn wood and many other wood commodities.

Kiln-drying is a process in which the moisture content in wood is reduced, by the application of heat, to achieve the prescribed moisture content for the intended use of the wood. Kiln-drying may be considered a heat treatment if carried out at sufficient temperatures and for sufficient durations. If lethal temperatures are not achieved throughout the relevant wood layers, kiln-drying on its own should not be considered a phytosanitary treatment.

Some species in the pest groups associated with wood commodities are dependent on moisture and therefore may be inactivated during kiln-drying. Kiln-drying also permanently alters the physical structure of the wood, which prevents subsequent resorption of sufficient moisture to sustain existing pests and reduces the incidence of post-harvest infestation. However, individuals of some species may be capable of completing their life cycles in the new environment of reduced moisture content. If favourable moisture conditions are re-established, many fungi and nematodes and some insect species may be capable of continuing their life cycles or infesting the wood after treatment.

Air-drying

Compared with kiln-drying, air-drying reduces wood moisture content only to ambient moisture levels and is therefore less effective against a broad range of pests. The pest risk remaining after treatment depends on the duration of drying and the moisture content and on the intended use of the wood. Moisture reduction through air-drying alone should not be considered a phytosanitary measure.

Although moisture reduction through air-drying or kiln-drying alone may not be a phytosanitary measure, wood dried to below the fibre saturation point may be unsuitable for infestation by many pests. Therefore the likelihood of infestation of dried wood is very low for many pests.

Irradiation

The exposure of wood to ionizing radiation (e.g. accelerated electrons, x-rays, gamma rays) may be sufficient to kill, sterilize or inactivate pests (ISPM 18 *(Guidelines for the use of irradiation as a phytosanitary measure)*).

Modified atmosphere treatment

Modified atmosphere treatments may be applied to round wood, sawn wood, wood chips and bark.

In such treatments, wood is be exposed to modified atmospheres (e.g. low oxygen, high carbon dioxide) for extended periods of time to kill or inactivate pests. Modified atmospheres can be artificially generated in gas chambers or allowed to occur naturally, for instance during water storage or when the wood is wrapped in airtight plastic.

APPENDIX 6: List of draft ISPMs approved for consultation periods July-September 2016

Draft ISPMs

- 2016 Amendments to ISPM 5 (*Glossary of phytosanitary terms*) (1994-001)
- Revision of ISPM 6 *Guidelines for surveillance* (2009-004)
- *Requirements for the use of temperature treatments as a phytosanitary* measure (2014-005)
- *International movement of wood* (2006-029) (approved for a third consultation in English only)
- *International movement of growing media* (from SC Nov 2015) (approved for a third consultation in English only)

Draft diagnostic protocols

- Phytophthora ramorum (2004-013)
- Fusarium circinatum (2006-021)
- *Candidatus* Liberibacter solanacearum (2013-001)

APPENDIX 7: Draft Amendments to ISP Page 76 of 126M 5 (2016): *Glossary of phytosanitary terms* (1994-001)

Publication history

Date of this document	2016-05-16
Document category	Draft 2016 Amendments to ISPM 5 (Glossary of phytosanitary terms) (1994-001)
Current document stage	To first consultation (2016-07)
Major stages	CEPM (1994) added topic: 1994-001, Amendments to ISPM 5: Glossary of phytosanitary terms 2006-05 SC approved specification TP5 2012-10 Technical Panel for the Glossary (TPG) revised specification 2012-11 SC revised and approved revised specification, revoking Specification 1 2015-12 TPG drafted text 2016-05 SC approved for first consultation
Notes	Note to Secretariat formatting this paper: formatting in definitions and explanations (strikethrough, bold, italics) needs to remain.

Members are asked to consider the following proposals for addition, revision and deletion of terms and definitions to ISPM 5 *(Glossary of Phytosanitary Terms)*. A brief explanation is given for each proposal. For revision of terms and definitions, only the proposed changes are open for comment. For full details on the discussions related to the specific terms, please refer to the meeting reports on the IPP.

1. ADDITION

1.1 "exclusion (of a pest)" (2010-008)

In 2009, the Technical Panel for Fruit Flies (TPFF) developed a proposal for a definition of "exclusion" in the draft ISPM on *Phytosanitary Procedures for Fruit Fly (Tephritidae) Management* (2005-010)[47]. The term was added to the *List of topics for IPPC standards* by the Standards Committee (SC) in April 2010 based on a TPG proposal. The TPFF definition was reviewed and modified by the TPG in October 2010, reviewed by the SC in May 2011 and sent for member consultation in June 2011. *In view of the comments received, in November 2011 the TPG suggested that "exclusion"* should be reconsidered in association with "containment", "suppression", "eradication" and "control". The TPG proposed revisions in the 2013 Amendments to use "official measures" instead of "phytosanitary measures" in these definitions, because "phytosanitary measures" relates only to regulated pests (i.e. quarantine pests or regulated non-quarantine pests), and there is no need to restrict the definition of these terms to regulated pests. The SC in May 2013 agreed to send them for member consultation.

The TPG reviewed member comments in 2014 and presented a recommendation to the SC May 2014 to withdraw the terms from the Amendments because it resulted from the member comments that contracting parties had different understandings of "phytosanitary measure". The TPG had outlined two understandings: narrow which would include only measures established by the importing country ("official measures" would be used in the exporting country), and broad, which would include measures established by either the importing or the exporting country to manage pests regulated by the importing country. "Phytosanitary measures" should in any case be used only in relation with regulated pests only. The SC in May 2015 discussed the understanding of the term "phytosanitary measure" and did not agree which interpretation should be used.

[47] This draft was adopted by the Commission on Phytosanitary Measures (CPM) in 2015 as Annex 3 to ISPM 26.

In their December 2015 meeting, the TPG discussed further the understanding of "phytosanitary measure" and the related terms. They reviewed the use of "phytosanitary measure" in the IPPC and in adopted ISPMs and noted that in some cases the term was used in the narrow understanding, in other cases it was used in the broad understanding, and that there were cases for which it could be argued which understanding was meant. Referring to the WTO Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement), some TPG members added that whilst "phytosanitary measures" in the preamble and Annex A (1) is used in the narrow understanding, in article 4 (Equivalence) it also refers to measures taken by the exporting country, consistently with the broad understanding. Besides, applying the narrow understanding to the SPS agreement may also mean that official measures other than phytosanitary measures may not need to be scientifically justified. The TPG discussed the possible impact of a decision to implement the narrow understanding and found that a number of Glossary definitions would need to be modified because they were actually used in ISPMs in the broad sense. The TPG did not agree on this issue and thus decided to not propose changes to the definitions of the terms "containment", "control (of a pest)", "eradication" and "suppression".

The following explanatory points may be considered when reviewing the proposal for the term "exclusion (of a pest)":

- It is useful to add this term and its definition to the existing collection of "*control*"-related terms, which includes "*containment"*, "*control (of a pest)*", "*eradication"* and "*suppression"*.
- It is recommended to use "phytosanitary measures" rather than "official measures". Although "official" might have been appropriate for such measures applied against pests within a country, the definitions of "containment", "control (of a pest)", "eradication" and "suppression" use "phytosanitary measures", and it is not be desirable to introduce inconsistency between all these definitions.
- The term is qualified by "of a pest" so the word "exclusion" can still be used in its common meaning in other contexts, as is currently the case in various ISPMs (such as "excludes wood packaging material" in ISPM 15, "exclude a certain area" in ISPM 22, exclusion of chemicals or equipment in ISPM 27). The use of a qualifier is also consistent with other glossary terms, such as "control", "entry" and "establishment".
- The term "introduction" (i.e. "entry and establishment") is used and not "entry". A package of exclusion measures might include measures to prevent "establishment" in cases of transience or incursion.
- Although the definition of "introduction" already refers (indirectly) to an area by using the term "entry", the words "into an area" were added for clarification, as the concept of exclusion is linked to a defined area, whether a country or an area within a country or between several countries.
- It was considered whether the wording "the application of measures in and around an area" should be used to be consistent with the definition of "containment" and to cover the case of a buffer zone. It is recognized that the definition of "exclusion" was originally developed to apply to pest free areas (PFAs) and areas of low pest prevalence (ALPPs) for fruit flies (in which case it is restricted to the application of measures "in and around an area"); however, exclusion also needs to be used in contexts other than fruit fly PFAs and ALPPs. "In and around an area" is not relevant in the common scenario in which the area under exclusion is a whole country, or when exclusion measures that benefit one country are applied in another country.

Proposed addition

exclusion (of a **pest**)	Application of **phytosanitary measures** to prevent the **introduction** of a **pest** into an **area**.

2. REVISIONS

2.1 "quarantine" (2015-002)

The Glossary term "quarantine" was added to the *List of topics for IPPC Standards* by the SC in May 2015 based on a TPG proposal. The TPG reviewed the term in their December 2015 meeting and discussed whether the purposes "observation and research" should be kept in the definition.

The following explanatory points may be considered when reviewing the definition:

- It is current practice that observation and research may be carried out in quarantine stations on pests and beneficial organisms. In order to not exclude such practice, the term "quarantine" should therefore cover the official confinement of biological control agents and other beneficial organisms, which is intended to ensure that they will have minimal negative effects after release and would require observation and research. Thus, official confinement may be carried out for observation and research on pests or beneficial organisms which are not included under "regulated articles", and it is proposed to add text in the definition to clarify this.
- It is proposed to remove "further" in the definition because there may be cases where initial inspection, testing or treatment has not been carried out before the regulated article is placed in quarantine.

Current definition

quarantine	**Official confinement** of **regulated articles** for observation and research or for further **inspection**, **testing** or **treatment** [FAO, 1990; revised FAO, 1995; CEPM, 1999]

Proposed revision

quarantine	**Official confinement** of **regulated articles** for ~~observation and research or for further~~ **inspection**, **testing** or **treatment** or of **pests** or beneficial organisms for observation or research [FAO, 1990; revised FAO, 1995; CEPM, 1999]

2.2. "test" (2015-003), "visual examination" (2013-010)

The term "visual examination" was added to the *List of topics for IPPC standards* by the SC in May 2013, based on a TPG proposal. A revised definition was proposed by the TPG in February 2014 and approved for member consultation by the SC in May 2014. At their December 2014 meeting, the TPG discussed whether "visual examination", "testing" and "inspection" should be reviewed in combination, as suggested by a member comment. The TPG found that the issue might arise from the definition of "test" and invited the SC to add the term to the *List of topics for IPPC standards*. In May 2015, the SC added the term "test" to the *List of topics for IPPC standards*, and the SC-7 withdrew "visual examination" from the 2014 draft Amendments to ISPM 5 (1994-001) so that definitions of "visual examination", "testing", and "inspection" could be considered by the TPG together to ensure they are consistent and useful. In November 2015, the SC added the term "inspection" (2015-012) to the *List of topics for IPPC standards.* The TPG reviewed the terms "test", "visual examination" and "inspection" in their December 2015 meeting.

The following explanatory points may be considered when reviewing the definitions:

- The current definition of "inspection" is clear and useful and reflects appropriately the concept described in ISPM 23. The term therefore should not be revised.

- The definition of "test" clearly separates such methods from "visual examination". However, the definition does not exclude that "visual examination" may be done before or after testing. In the proposed revision of "test", the mention "of plants, plant products, or other regulated

articles" is added to clearly indicate that "inspection" and "testing" are two different methods on the same hierarchical level.

- The definition of "visual examination" should describe the process of visual examination, but not its purpose ("to detect pests or contaminants without testing or processing"). The purpose is covered in the definition of "inspection". Both definitions are needed with "visual examination" simply describing the process, whilst "inspection" describes its application in the phytosanitary context (i.e. it is official and to determine if pests are present or to determine compliance with phytosanitary regulations). The original wording in the definition of visual examination was also confusing (as contamination covers both pests and regulated articles). Although "processing" is often necessary and more elaborate prior to "testing", some simple processing (e.g. dyeing) may also be carried out prior to visual examination, so need not to be mentioned. "Without testing" was also deleted because it does not add clarification, and the contrast to "testing" is already well covered under the definition of "test".
- ISPM 23 states that certain tools may be used in conjunction with the inspection process. The simple use of a microscope can be considered part of the inspection process, and should be maintained in the definition of "visual examination" for clarification.
- Collecting and sending samples to a laboratory for the verification of the pest's identity may be combined with the inspection process, independent if the verification is made visually or by testing.
- The current definition of "inspection" and the proposed revisions for "test" and "visual examination" adequately reflect the uses in adopted ISPMs. The definitions are general; any particular requirements that would differ from those described in the definitions should be clarified in the ISPM text.

Current definitions

test	**Official** examination, other than visual, to determine if **pests** are present or to identify **pests** [FAO, 1990]
visual examination	The physical examination of **plants**, **plant products**, or other **regulated articles** using the unaided eye, lens, stereoscope or microscope to detect **pests** or **contaminants** without **testing** or processing [ISPM 23]

Proposed revisions

test	**Official** examination <u>of **plants**, **plant products**, or other **regulated articles**,</u> other than visual, to determine if **pests** are present or to identify **pests** [FAO, 1990]
visual examination	The physical examination of **plants**, **plant products**, or other **regulated articles** using the unaided eye, lens, stereoscope or microscope~~ to detect **pests** or **contaminants** without **testing** or processing~~ [ISPM 23]

3. DELETIONS

3.1. "pre-clearance" (2013-016)

When reviewing the draft ISPM *Phytosanitary pre-import clearance* (2005-003) in their May 2013 meeting, the SC added the revision of the term "pre-clearance" to the *List of topics for IPPC standards* with a pending status because the term was causing confusion. At the May 2015 meeting, the SC approved the draft appendix to ISPM 20 on *Arrangements for verification of compliance of consignments by the importing country in the exporting country* (2005-003) for member consultation, in which the term "pre-clearance" is not used. The SC agreed to remove the pending status of the term and asked the TPG to consider it in the context of the term "clearance (of a consignment)". The TPG

reviewed it in their December 2015 meeting and proposed the deletion of the term "pre-clearance" (2013-016).

The following explanatory points may be considered:

- The current definition of "pre-clearance" is not in accordance with the Convention as it indicates that phytosanitary certification can be performed by or under the regular supervision of the national plant protection organization of the country of destination.
- "Pre-clearance" is currently used in many different countries with very different meanings. It does not seem possible to revise the definition to adequately reflect all the various meanings of the term allowing for international harmonization and agreement. The term "pre-clearance" is only used three times in ISPM 20 and is not used in the draft appendix to ISPM 20 on *Arrangements for verification of compliance of consignments by the importing country in the exporting country* (2005-003), which was submitted to member consultation in 2015. Thus, the deletion of term from the Glossary appears to be the best solution as its current definition is incorrect.
- Ink amendments to ISPM 20 might be considered at a later stage to reflect the concept outlined in the draft appendix to ISPM 20, once fully clarified and if deemed appropriate.
- The deletion of the term "pre-clearance" would not affect the meaning of "clearance (of a consignment)" which is considered to be clear.

Proposed deletion

pre-clearance	**Phytosanitary certification** and/or **clearance** in the **country of origin**, performed by or under the regular supervision of the **national plant protection organization** of the country of destination [FAO, 1990; revised FAO, 1995]

APPENDIX 8: Draft revision of ISPM 6: *National surveillance systems* (2009-004)

Status box

This is not an official part of the standard and it will be modified by the IPPC Secretariat after adoption.	
Date of this document	2016-05-17
Document category	Draft revision of ISPM 6 (*Guidelines for surveillance* (2009-004))
Current document stage	*To* SC for First consultation
Major stages	2009-11 SC recommended topic *Revision of ISPM 6 (Guidelines for surveillance)* be added to the work programme 2010-03 CPM-5 added topic to the *List of topics for IPPC standards* 2014-05 SC revised and approved specification 61 2015-09 EWG started the revision of ISPM (meeting) 2015-11 EWG finalized draft ISPM (virtual meeting) 2016-05 SC revised and approved draft for First consultation
Steward history	2009-11 SC Mr John HEDLEY (NZ, Lead Steward) 2013-05 SC Mr Bart ROSSEL (AU, Assistant Steward) 2015-05 SC Mr Piotr WLODARCZYK (PL, Lead Steward) 2015-11 SC Ms Esther KIMANI (KE, Assistant Steward) 2016-05 SC Mr Ezequiel FERRO (AR, Lead Steward)
Notes	2016-01 Edited The EWG recommended the title change from "Guidelines for surveillance" to "National surveillance systems"

CONTENTS [to be inserted]

Adoption

[To be inserted following adoption]

INTRODUCTION

Scope

This standard describes the requirements for surveillance, including the components of a national surveillance system.

References

The present standard refers to 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.

WTO (World Trade Organization). 1994. *Agreement on the application of sanitary and phytosanitary measures*. Geneva, WTO. Available at https://www.wto.org/english/tratop_e/sps_e/spsagr_e.htm.

Definitions

Definitions of phytosanitary terms used in this standard can be found in ISPM 5 (*Glossary of phytosanitary terms*).

Outline of Requirements

Surveillance is one of the core activities of national plant protection organizations (NPPOs). It provides NPPOs with a technical basis for many phytosanitary measures; for example, phytosanitary import requirements, pest free areas, pest reporting and eradication.

National surveillance systems should comprise surveillance programmes and the capacity and infrastructure required to implement them. The methodology of surveillance should be described in surveillance protocols. When designing national surveillance systems, NPPOs should consider options relating to phytosanitary legislation and policies, prioritization, planning, resources, documentation, training, auditing, communication and stakeholder engagement, and pest diagnostics.

In this standard, the components of national surveillance systems, relating to both general surveillance and specific surveillance, are described. Elements of specific surveillance are also described. The standard also provides guidance for information management systems as they are essential for the future use of the information collected within surveillance programmes.

BACKGROUND

Under ISPM 1 (*Phytosanitary principles for the protection of plants and the application of phytosanitary measures in international trade*) countries are required to justify their phytosanitary measures on the basis of pest risk analysis. The principles referred to in ISPM 1 endorse the concept of "pest free area", a description of which is provided in ISPM 4 (*Requirements for the establishment of pest free areas*). This concept is also referred to in the World Trade Organization's agreement on the application of sanitary and phytosanitary measures (WTO, 1994). Surveillance is an integral component in the establishment and maintenance of pest free areas, and is linked to many ISPMs; for example, ISPM 2 (*Framework for pest risk analysis*), ISPM 4 (*Requirements for the establishment of pest free areas*), ISPM 7 (*Phytosanitary certification system*), ISPM 8 (*Determination of pest status in an area*), ISPM 9 (*Guidelines for pest eradication programmes*), ISPM 10 (*Requirements for the establishment of pest free places of production and pest free production sites*), ISPM 11 (*Pest risk analysis for quarantine pests*), ISPM 14 (*The use of integrated measures in a systems approach for pest risk management*), ISPM 17 (*Pest reporting*), ISPM 19 (*Guidelines on lists of regulated pests*), ISPM 20 (*Guidelines for a phytosanitary import regulatory system*), ISPM 21 (*Pest risk analysis for regulated non-quarantine pests*), ISPM 22 (*Requirements for the establishment of areas of low pest prevalence*), ISPM 26 (*Establishment of pest free areas for fruit flies* (*Tephritidae*)), ISPM 29 (*Recognition of pest free areas and areas of low pest prevalence*), ISPM 30 (*Establishment of areas of low pest prevalence for fruit flies* (*Tephritidae*)) and ISPM 35 (*Systems approach for pest risk management of fruit flies* (*Tephritidae*)).

Surveillance underpins the following activities:

- the early detection of new pests
- the compilation of host pest lists, commodity pest lists and pest distribution records (e.g. to support pest risk analysis and phytosanitary certification)
- the declaration of pest free areas or areas of low pest prevalence
- the determination of pest status
- reporting to other countries
- measuring changes in pest population size or pest prevalence (e.g. for research)
- eradication and management
- biodiversity research, management and reporting.

IMPACTS ON BIODIVERSITY AND THE ENVIRONMENT

This standard may contribute to the protection of biodiversity and the environment by helping countries develop systems to provide reliable and well-structured information on the presence or absence of pests in an area. These could include organisms relevant to biodiversity (invasive alien species), human health and animal health.

REQUIREMENTS

1. Components of National Surveillance Systems

A national surveillance system is an integral part of a country's plant health strategy and may contribute to the facilitation of trade.

A national surveillance system should comprise surveillance programmes (e.g. for fruit flies, wood-boring insects or fungi) and the capacity and infrastructure required to implement them (Figure 1).

Each of the programmes may contain a number of elements such as:

- general surveillance
- specific surveillance (one or more)

Surveillance protocols describe how to conduct general and specific surveillance.

Sections 1.1 to 1.9 describe the elements of supporting infrastructure to be considered when NPPOs design national surveillance systems.

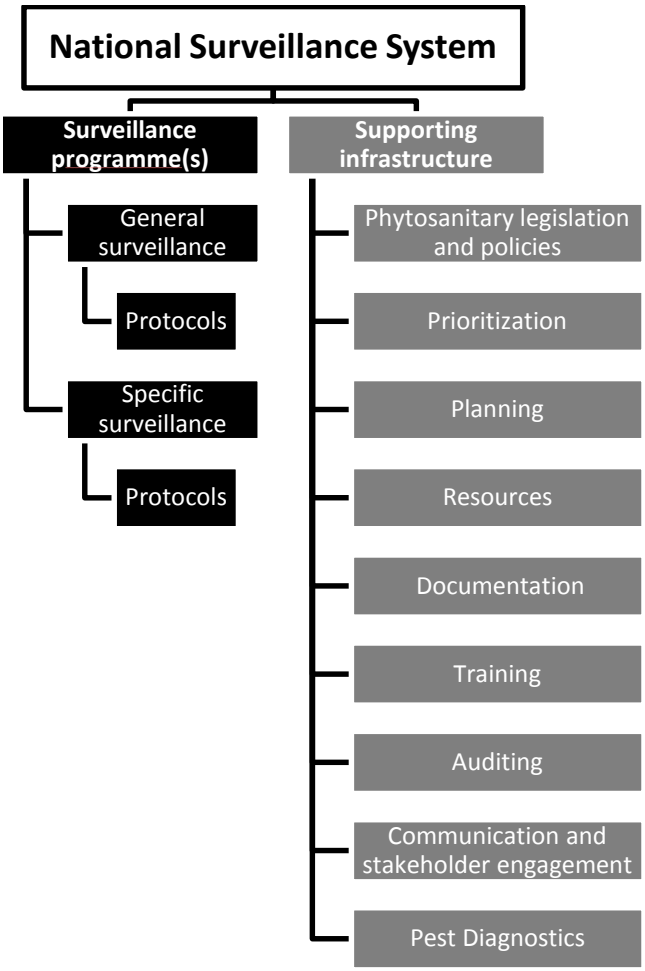

Figure 1. National surveillance systems comprise surveillance programmes (general or specific) and supporting infrastructure.

1.1 Phytosanitary legislation and policies

National surveillance systems should be supported by phytosanitary legislation and policies that ensure authority, responsibilities and financial resources are assigned to the appropriate administrative level – national (e.g. NPPO), state, provincial or regional. Legislation may include third party authorization by the NPPO.

Phytosanitary legislation should include appropriate provisions for:

- entering premises and inspecting or collecting samples of plants, plant products or other articles that may be capable of harbouring pests
- the continuous training of diagnostics personnel and the establishment and maintenance of facilities to ensure that pests are properly identified
- the legal protection of NPPO officers or persons authorized by the NPPO who perform surveillance activities
- mandatory domestic reporting (e.g. by research institutions, diagnostic laboratories, non-governmental organizations, industry, local government or scientific groups) to the NPPO on potential pests new or exotic to an area.

Surveillance policies should cover responsibilities related to administration, finance and governance within the NPPO, including funding for surveillance activities, internal procedures for surveillance deliverables and the identification of milestones, and training and qualification of personnel.

1.2 Prioritization

Priorities for surveillance may vary from country to country depending on the needs for surveillance information.

Elements to consider in prioritizing surveillance programmes may include:

- existing bilateral, regional or international arrangements
- implementation of pest management programmes where surveillance is used as an instrument (e.g. eradication)
- emerging pests at the local, regional or international level
- whether other more cost-effective alternatives to surveillance will achieve the phytosanitary objectives
- the availability of the tools and methodologies required to implement a surveillance programme
- the quality and reliability of the expected surveillance results, given the required resource expenditure
- national lists of priority pests prepared using pest risk analysis ranking methods or similar analytical techniques
- whether the pests affect biodiversity
- trade and market access considerations.

1.3 Planning

Once priorities for surveillance have been established, NPPOs should develop plans for the implementation of surveillance programmes, taking into account phytosanitary legislation and policies.

1.4 Resources

Surveillance should be adequately resourced with appropriate human, financial and physical resources.

Human resources may include staff in administration, operations, technical functions, management and logistics. Human resources management by NPPOs should consider staff qualification requirements,

technical capabilities and training needs, as well as overall capacity development and succession planning.

Financial resources may be required for surveillance logistics and staff travel, equipment purchase and maintenance, staff training, specimen processing and diagnosis, maintenance of an information management system, facility maintenance and emergency response expenses for unplanned surveillance activities.

Physical resources may include field equipment, vehicles and consumables used for carrying out surveys, reference materials and other documentation, computers and other equipment for data input and storage, software for information management systems, staff uniforms, and materials for raising public awareness.

Resources for diagnostics services are essential to a national surveillance system.

1.5 Documentation

NPPOs should develop administrative procedures (e.g. standard operating procedures for, among other things, engaging stakeholders and financial management) for maintaining official documentation, surveillance protocols (e.g. technical instructions) and reference materials. This documentation is essential for promoting consistency, improving reliability, and facilitating audit and verification of activities under a national surveillance system.

1.6 Training

Training, assessment and regular review of staff are integral components of a national surveillance system. NPPOs should develop and implement procedures to ensure the competencies of staff are maintained at appropriate levels.

Personnel involved in surveillance should be adequately trained in plant protection and related fields (including relevant pest species, their biology and hosts, and their symptoms of infestation) and data management. Field staff should also be trained in sampling methods, preservation and transportation of samples for identification, and record keeping associated with samples.

Training materials should be developed and updated in accordance with current surveillance practices to help ensure staff competencies are developed and maintained. Training materials, along with reference materials, should be readily available to all personnel of the NPPO.

Training procedures and records may be used by NPPOs to demonstrate good governance practices to external stakeholders and promote system transparency.

1.7 Auditing

NPPOs should conduct regular audits of their general and specific surveillance to ensure that activities are carried out in accordance with relevant surveillance protocols. The scope and timing of audits should be included in the design of each surveillance programme.

Aspects of the activity or the surveillance system that are identified during an audit as being deficient should be subjected to corrective actions in a timely manner.

1.8 Communication and stakeholder engagement

NPPOs are encouraged to engage with stakeholders on the design, planning, implementation and review of national surveillance systems, as well as on priorities for surveillance and on outcomes, using effective and timely communication. Arrangements may include:

- communication internal to the NPPO (e.g. meetings, briefings, newsletters)
- communication external to the NPPO (e.g. official reporting, industry notices)

- formal stakeholder engagement (e.g. forums, newsletters, awareness raising and training initiatives)
- formal and informal national surveillance networks that develop and implement surveillance programmes, and their channels to communicate information to and from the NPPO.

1.9 Pest diagnostics

Diagnostics services are fundamental to the success of a national surveillance system. NPPOs should ensure appropriate diagnostic services are available. Diagnostics references are available in ISPM 27 (*Diagnostic protocols for regulated pests*).

Verification of diagnoses by recognized authorities other than the NPPO may be needed.

2. Surveillance Design

The methodology of surveillance should be described in surveillance protocols. The protocols should aim to achieve the purpose of the surveillance programme, which may include elements of general and specific surveillance.

Surveillance protocols should provide clear instructions for carrying out a surveillance activity in a consistent manner that can be used by various operational staff at different locations and with different skill sets. Methods used in the surveillance protocol may be distinguished by, for example, the means in which data are collected, where the surveillance is carried out, or whether the methods are focused on the pest, host or pathway.

Surveillance methods may be based on recognized guidelines or agreed by NPPOs. Surveillance managers and officers should be aware of current methodologies associated with specific groups of pests and should ensure that the methods are used appropriately to deliver reliable and defensible surveillance outcomes.

NPPOs may need to develop new methods when faced with new or emerging pests. In all cases, surveillance methods should be based on relevant scientific and statistical information, and be operationally feasible.

2.1 General surveillance

Through general surveillance, NPPOs utilize various sources of pest information and pest distribution. These sources may include, among others, national or local government agencies, research institutions, universities, scientific societies (including those of amateur specialists), producers, consultants, museums, the general public, scientific and trade journals, unpublished data, and the websites of other NPPOs or international organizations (e.g. the IPPC, regional plant protection organizations, the Convention on Biological Diversity).

2.1.1 Approaches to general surveillance

NPPOs may use a range of approaches to general surveillance with varying degrees of involvement by the NPPO – from passive data acceptance to increasingly structured and targeted programmes run entirely by the NPPO. Examples of general surveillance approaches are listed below, starting with the most passive:

- receipt of reports from the general public (i.e. initiated by the public)
- scanning of sources of pest information
- general encouragement of public reporting through official channels (e.g. via a free call phone number in response to publicity about plant health or the advantages of reporting pests)
- targeted encouragement of public reporting on specific pests – this is useful where the target species is known and public awareness is already high (mobilization can be further increased through the use of public awareness materials) and during known periods of high propagule pressure (e.g. breeding seasons)

- targeted encouragement of reporting by specific groups (e.g. producers, community groups) – this works well in situations where the crop is known but the pest of concern is unknown
- targeted involvement of specific groups in plant health activities organized by the NPPO to obtain surveillance data (e.g. plant health clinics and agricultural extension activities).

When developing approaches to general surveillance, NPPOs should take into account that at the passive end of the range:

- costs and resource requirements are usually lowest
- good results are more readily achieved for easily noticed pests (e.g. beetles and caterpillars with recognizable characteristics) or disease symptoms
- detection of hidden pests (e.g. wood-boring beetles) is usually less effective
- surveillance need not be restricted to a defined period of time, it can continue throughout the year
- there is a higher likelihood than for more targeted approaches of unexpected species being reported
- the percentage of reports of a significant pest is usually small.

In general, moving through the range of approaches from passive to substantial involvement means increasing sensitivity and specificity, but this usually comes with increasing costs.

2.1.2 Components of general surveillance

The components of general surveillance are:

(1) incentives for reporting, which may include:
   - legislative obligations (for the general public or specific agencies)
   - cooperative agreements (between NPPOs and stakeholders)
   - the use of contact personnel to enhance communication channels to and from NPPOs
   - public education and awareness raising initiatives

(2) mechanisms for reporting, which may include:
   - publicly accessible free call phone numbers
   - free post systems for delivery of samples
   - smartphone apps
   - social media channels

(3) systems or processes to enhance the quality of reporting, which may include:
   - a filtering process at the point of initial contact
   - the ability to send and receive images for initial identification
   - publicity material to allow submitters to self-filter (e.g. leaflets and websites with pest information and photos)
   - training for submitters

(4) means to consolidate, analyse and report the information gathered, which may include:
   - spatial modelling tools embedded in web-based systems (e.g. geographical information systems)
   - mathematical and simulation models of data collected (e.g. Bayesian networks)
   - integrated national, regional or global databases.

NPPOs should recognize that general surveillance can effectively supplement specific surveillance. For example, general surveillance can provide the context for specific surveillance to accurately determine the pest status in an area or site.

2.2 Specific surveillance

Through specific surveillance, NPPOs actively gather pest distribution information in structured programmes. Specific surveillance includes surveys that are conducted over a defined period of time to determine the characteristics of a pest population or to determine which species are present in an area. Three types of specific surveys may be utilized by NPPOs depending on the objectives of the surveillance programme:

- detection survey: conducted in an area to determine if pests are present
- delimiting survey: conducted to establish the boundaries of an area considered to be infested by or free from a pest
- monitoring survey: ongoing survey to verify the characteristics of a pest population.

These surveys may be developed for pests, hosts, pathways or commodities.

Elements that should be considered in the design of specific surveillance are described in a surveillance protocol, and are presented in sections 2.2.1 to 2.2.9.

2.2.1 Purpose

The purpose of the surveillance should include background on the phytosanitary objectives and the reasons the information is required (e.g. early detection, assurance for a pest free area, a commodity pest list, a market access issue).

2.2.2 Scope

The scope describes the extent of the area to be covered by the surveillance, both geographically and in terms of the production system (whole or parts).

2.2.3 Target

Related to the scope of the surveillance, the target of the surveillance should be described. The target may be a single or multiple pest, host, pathway or commodity, or a combination of any of these.

2.2.4 Timing

Timing includes the start and end dates of the survey and the frequency of visits by field staff. These may be determined by, for example, the life cycle of the pest, the phenology of the pest's hosts or the scheduling of pest management programmes.

The timing of audits should also be described, if appropriate.

2.2.5 Area or site selection

Area or site selection may be determined by:

- the previously reported presence and distribution of the pest
- pathways for introduction and spread of the pest
- the biology of the pest
- the climatic suitability of the area for the pest
- the geographical distribution of host plants and production areas
- pest management programmes (at commercial and non-commercial sites)
- the points of consolidation of the harvested commodity.

2.2.6 Statistical design

NPPOs should describe the population to be surveyed. It is useful to consider the population as a collection of similar units of concern. The population may be based on pest biology, pathway or an

entity upon which phytosanitary measures may be applied. The population may be of various types, for example:

- a geographical unit with a trapping grid placed over an area
- a field planted with a host crop
- individual host plants in an unmanaged area
- a storage facility.

It is often not feasible to survey an entire population. Therefore, NPPOs may decide to perform the surveillance on a sample taken from the population. The four most common sampling methods, which may be applied alone or in combination, are:

- random sampling
- systematic sampling
- stratified sampling
- targeted sampling.

Statistical sampling methods as described in ISPM 31 (*Methodologies for sampling of consignments*) or other appropriate methods can be used. They are often used when the data captured are of a binary nature (presence/absence). The data collected in monitoring surveys require a different form of statistical analysis and therefore it is recommended that expert advice is sought.

NPPOs are encouraged to state for the survey the level of confidence and the minimum level of detection of the pest, which are statistically related to each other and to the size of the sample (see ISPM 31 for further information). If no pests are detected in the sample, the prevalence of the pest in the area is below the level of detection at the stated level of confidence.

2.2.7 Data collection

NPPOs should determine the data elements to be captured in the surveillance records (see section 3 for requirements for surveillance records) and how these data will be transferred to the information management system (e.g. by the use of forms and electronic devices).

2.2.8 Biosecurity and sanitation

When developing surveillance protocols NPPOs should consider procedures to ensure that spread of pests is not facilitated during a survey. Field staff should consider biosecurity procedures in place at facilities or places of production being surveyed.

2.2.9 Sample handling

The surveillance protocol should include a description of how samples are to be collected, handled and prepared in order to ensure specimen integrity and preservation and timely delivery to the laboratory for diagnostic processing. Each sample should be given a unique identifier (label, number, etc.) to enable tracking and monitoring from the point of collection in the field, through the stages of processing and identification, to storage in a formal reference collection, if applicable.

3. Information Management Systems

National surveillance systems should be designed for the collection, consolidation, management, validation and reporting of surveillance data and information.

It is critical that surveillance data and information are collected in a uniform manner to ensure their integrity from collection through to reporting. NPPOs should develop and implement minimum data sets for use across all surveillance programmes and these data sets should form the basis of a surveillance information management system. Information management systems should ensure traceability of samples taken during surveillance activities. Data verification procedures are also an integral component of information management systems.

As well as being record keeping systems, information management systems should allow easy retrieval of data and information to meet national and international surveillance-related reporting requirements.

Information management systems should be designed to allow for surveillance information to be appropriately included in them, while recognizing that such information may need to be aligned before incorporation.

Information management systems should be a repository or centralized database for all results obtained. As such, they should be designed to record absence data. Valid absence data collected during detection, delimiting and monitoring surveys can be used by NPPOs to support a country's pest status and pest free areas as well as its trade and market access. The most important factor for the validity of absence data is the design of the surveillance.

3.1 Surveillance records

NPPOs should determine how long surveillance records are required to be retained, taking into account that they may be needed to support declarations of pest status.

Surveillance records should include, as a minimum, the following information:

- pest scientific name
- pest family and order
- host scientific name (as often as possible)
- locality (e.g. location code, address, coordinates)
- collection date and name of collector
- identification date, method of identification and name of identifier.

Surveillance records should also include, to the extent possible, the following information, especially if the presence of a quarantine pest is suspected:

- European and Mediterranean Plant Protection Organization (EPPO) codes for pest or host scientific names
- verification date, method of verification and name of verifier
- references (e.g. diagnostics references)
- sources of information and data.

Additional information may be useful; for example, the nature of the pest and host relationship, infestation status, pest incidence, the growth stage of the host plant affected, whether the host plant is grown only in greenhouses, the plant part affected or the means of sample collection (e.g. attractant trap, soil sample, sweep net).

The NPPO or an institution designated by the NPPO should act as the national repository for plant pest records, including surveillance records.

3.2 Analysis and reporting

Tools such as spatial mapping (geographical information system) and modelling and statistical analysis software can be used to manage surveillance data and to facilitate their presentation and reporting.

The information contained in the reports produced from an information management system depends on the type of surveillance conducted. In all cases reports should provide data on the target (pest, host, pathway or commodity of concern), the area covered, the number of observations or samples taken, the results obtained and, if appropriate, statistical reliability.

The means to consolidate, analyse and report data may be used to predict the probable behaviour of pests or vectors or the likelihood of invasions in order to support surveillance and response decision-making.

While carrying out surveillance, pests that require obligatory reporting may be found; in such cases, ISPM 17 should be followed.

4. Transparency

NPPOs should, on request, provide information on pest presence, distribution or absence and methodologies used to conduct surveillance.

APPENDIX 9: Draft ISPM: *Requirements for the use of temperature treatments as phytosanitary measures* (2014-005)

Status box

This is not an official part of the standard and it will be modified by the IPPC Secretariat after adoption.	
Date of this document	2016-05-23
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Steward history	2014-05 SC Mr Eduardo WILLINK (AR, Steward) 2014-05 SC Mr Glenn BOWMAN (AU, Assistant Steward)
Notes	2016-01 Edited

CONTENTS [to be inserted later]

Adoption

[Text to this paragraph will be added following adoption.]

INTRODUCTION

Scope

This standard provides harmonized technical guidance on the application of temperature treatments as phytosanitary measures for regulated pests or regulated articles. Target temperature, duration of treatment, commodity tolerance, equipment required, verification and other essential aspects of the application of temperature treatments are covered in ISPM 28 (*Phytosanitary treatments for regulated pests*).

Some temperature treatments are recognized but are not addressed in this standard. These include treatments using steam, quick freezing and Joule (ohmic) heating.

References

The present standard refers to 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.

Definitions

Definitions of phytosanitary terms used in this standard can be found in ISPM 5 (*Glossary of phytosanitary terms*).

Outline of Requirements

Treatment schedules based on temperature treatments may be used for pest risk management. National plant protection organizations (NPPOs) should be satisfied that the efficacy of a treatment has been demonstrated according to ISPM 28 for the regulated pest of concern and the required result.

The application of a temperature treatment requires calibration of temperature monitoring and recording systems and temperature mapping of the chamber to ensure that the specific chamber–commodity configuration will enable the treatment to be effective.

Phytosanitary treatments based on temperature are considered effective when a specific temperature–time combination prescribed for the stated level of efficacy to be achieved is attained throughout the consignment being treated.

The NPPO is responsible for ensuring that ships' holds, containers or other facilities are appropriate for phytosanitary treatments based on temperature. Procedures should be in place to ensure that the treatment can be conducted properly and commodity lots are handled, stored and identified in a manner that maintains the phytosanitary security of the consignment. Records should be kept and should include a compliance agreement between the operator of the facility where the treatment is conducted and the NPPO, stipulating in particular the specific requirements for phytosanitary measures.

BACKGROUND

ISPM 28 was adopted to harmonize efficient phytosanitary treatments in a wide range of circumstances and to enhance the mutual recognition of treatment efficacy by NPPOs, which may facilitate trade.

The purpose of this ISPM is to provide harmonized requirements for the application of phytosanitary temperature treatments, specifically those adopted under ISPM 28. This standard provides guidance on the main operational requirements for each type of temperature treatment in order to ensure the treatments are applied effectively, consistently and in a manner that minimizes economic and environmental impacts.

IMPACTS ON BIODIVERSITY AND THE ENVIRONMENT

The use of temperature treatments as phytosanitary measures has no direct impact on biodiversity and the environment. The application of temperature treatments may be an alternative to other treatments that may impact the environment negatively (e.g. fumigation with methyl bromide). Temperature treatments do not directly use chemicals in their application, although energy and chemicals may be used to generate heat or cold.

REQUIREMENTS

1. Treatment Objective

The objective of using a temperature treatment as a phytosanitary measure is to achieve pest mortality at a specified level.

2. Treatment Application

Temperature treatments may be applied:

- as an integral part of packing operations
- at centralized locations such as the port of embarkation
- during transport, including completion of the treatment on arrival.

The minimum requirement of a temperature treatment is that the scheduled target temperature is attained throughout the commodity for the scheduled treatment duration, allowing the prescribed level of efficacy to be achieve1.

Variables to consider when implementing a temperature treatment are the temperature and duration of the treatment, and the humidity of the treatment environment or moisture content of the commodity, where applicable. These variables should be compatible with the treatment achieving the required level of efficacy. Controlled atmospheres or modified atmospheres created by packaging may alter treatment efficacy.

The treatment schedule should describe the process of pre- and post-conditioning to reach the target temperature, where these processes are critical to the treatment achieving the required level of efficacy. The schedule should also include contingency procedures and guidance on remedial actions for treatment failures.

3. Treatment Types

3.1 Cold treatment

Cold treatment uses refrigerated air to lower the temperature of the commodity to or below the specific temperature for a specific period of time. Cold treatment is used primarily for commodities that are hosts of internally feeding pests.

Cold treatment is the only temperature treatment that can be applied during transport. Treatment may be started before transport of the shipment and completed on its arrival. Where effective, mixed consignments may also be treated pre-shipment or during transport. In all cases, the phytosanitary security of the consignment should be maintained throughout treatment and transport.

3.2 Heat treatment

Heat treatment raises the temperature of the commodity to or higher than the required temperature for a specific period of time. Heat treatment is usually much faster than cold treatment, typically being efficacious within a few hours.

Following the completion of a heat treatment, rapid cooling to preserve commodity quality should be carried out only if this has been shown not to reduce the treatment efficacy.

3.2.1 Hot water immersion treatment

Hot water immersion treatment (also known as hydrothermal treatment) uses heated water at a prescribed temperature to heat the surface of the commodity for a specific period of time or to raise the entire commodity to the required temperature for a specific period of time. This treatment is used primarily for certain fruits that are hosts of fruit flies, but may also be used for nursery stock to control a variety of pests (e.g. nematodes in general and *Merodon equestris (*Diptera: Syrphidae)), and more generally may be used for surface pests such as mites and thrips.

Application of this treatment requires a simple infrastructure.

3.2.2 Vapour heat treatment

Vapour heat treatment uses vapour-saturated air to heat the commodity for a specific period of time. Because of the high heat energy of hot moist air, vapour heat is capable of raising the commodity temperature faster than dry air can. As vapour heat can readily penetrate to the interior of the commodity being treated, it can be applied to plant products of any shape or size.

This treatment is suitable for those plant products that are resistant to high moisture but are vulnerable to drying out, such as fruits, vegetables, flower bulbs, bamboo products and wood materials.

Variable humidity heat treatment (e.g. high temperature forced air treatment) is a type of vapour heat treatment. Hot and relatively dry fan-driven air is used initially, avoiding condensation, to heat the entire commodity from ambient temperature to the target temperature, which is then held in humid air, just below dew point, for a specific period of time. The advantage that high temperature forced air treatment has over vapour heat treatment or hot water immersion treatment is that hot saturated air or hot water may be more likely to damage the commodity through their more rapid heating and wetting of it, respectively.

3.2.3 Dry heat treatment

Dry heat treatment uses heated air at a prescribed temperature to heat the surface of the commodity for a specific period of time or raise the entire commodity to the required temperature for a specific period of time. This treatment is used primarily for seeds, grain, cereals and wood commodities.

3.2.4 Dielectric heat treatment

Dielectric heating raises the temperature of the commodity by subjecting it to high frequency electromagnetic waves that cause heating by molecular dipole rotation of polar molecules, especially water. Dielectric heating may be provided by the application of electromagnetic radiation over a range of frequencies, including microwaves and radio waves.

Unlike traditional heating techniques, where heat moves from the surface to the inside of the commodity, dielectric heating generates heat throughout the material, including the internal part, and the heat propagates by convection and conduction outwards, reducing treatment time.

Dielectric heating has the potential advantage of selectively heating moist substances, such as pests, within relatively drier commodities, such as wood, resulting in a shorter treatment time than if the entire commodity were heated with water or air until it reached a uniform temperature throughout.

Dielectric heating is applied in specialized ovens that operate through either a static system or a dynamic continuous system for heating.

4. Temperature and Humidity Calibration, Monitoring and Recording

Temperature and, when appropriate, humidity, monitoring and recording equipment should be appropriate for the selected temperature treatment. The equipment should be evaluated for stability against the effects of variables such as temperature, humidity and duration of treatment. It should be accurate to ±0.5 °C of the target treatment temperature.

To ensure that the required temperature, humidity and duration of treatment are achieved for a particular commodity, the temperature monitoring and recording equipment should be calibrated in accordance with international standards or appropriate national standards within the entire range of temperature or relative humidity specified in the treatment schedule.

Temperature monitoring methods should consider the following variations in the commodity being treated: (1) density and composition; (2) shape, size and volume; (3) orientation in the chamber (e.g. stacking); and (4) packaging.

The NPPO should ensure that the approved treatment for a commodity allows for accurate temperature and humidity monitoring and recording and thus verification that the treatment has been applied to a consignment. The system type, number of probes required, location of probes and frequency of monitoring should be prescribed on the basis of the specific equipment, commodities, relevant standards and phytosanitary import requirements.

4.1 Temperature mapping

The NPPO of the exporting country should ensure that temperature mapping by a person or an organization approved by the NPPO is undertaken, following approved procedures, for each geometric

packing configuration, arrangement and density of the commodity, and for each treatment chamber that will be used during the selected temperature treatment.

Temperature mapping studies should be conducted to fully characterize the temperature distribution within the temperature treatment chamber and the load (volume and arrangement of the commodity). Such information should be used to identify where the temperature monitoring and recording devices should be placed during the application of a temperature treatment using the same chamber type and load configuration. Temperature mapping should not need to be repeated for each load. Alternatively, temperature mapping may rely on historical use of treatments for information on the configuration, arrangement and density of a chamber, container or load. Independent temperature mapping for a partially filled treatment chamber is required to determine whether the temperature distribution is significantly different from a routine load and therefore whether the treatment needs to be adjusted accordingly.

Temperature mapping should be carried out following modifications or adjustments in equipment or processes that affect attainment of the target temperature for the treatment.

4.2 Probe placement for temperature monitoring

When the core temperature of the commodity needs to be monitored during treatment, probes should be inserted into appropriate examples of the commodity. In mixed consignments, probes should be placed appropriately to allow monitoring of the different commodities to ensure they have all reached the target temperature.

The probe should be appropriately secured to the commodity so that it does not become dislodged and in a manner that does not interfere with heat transfer in and out of the commodity.

For small commodities such as cherries and grapes, the probe should be inserted through enough of the fruit to ensure that it monitors pulp temperature and not ambient air temperature.

4.2.1 Cold treatment

Cold treatment requires:

- monitoring of the core temperature of the commodity throughout the consignment
- adequate air circulation to ensure the target temperature is uniformly maintained.

The number of probes will depend on factors such as treatment schedule, commodity size, the ratio of different commodities in mixed consignments and the type of treatment facility (e.g. ship's cargo hold or container used).

For facility-based pre-shipment and post-shipment cold treatment, at least five probes are required to monitor the temperature of the commodity; more probes may be required in accordance with temperature mapping studies or the size of the treatment facility.

Monitoring of air temperature may provide useful information for the verification of the treatment commodity.

Self-refrigerated containers for in-transit cold treatment require at least three probes per container to monitor the temperature of the commodity. Monitoring of the outlet air temperature also may be required.

It is highly recommended that additional probes be installed to compensate for possible sensor malfunction in one or more of the minimum required probes.

4.2.2 Hot water immersion treatment

Hot water immersion treatment requires:

- monitoring of the water temperature or monitoring of the core temperature of the commodity

- adequate water circulation to ensure the target temperature is uniformly maintained
- a means to ensure that the commodity is fully submerged.

Probes should be positioned in the water to ensure they can monitor the uniformity of the treatment temperature. Depending on the requirements of the treatment (e.g. whether the core temperature of the commodity or the water temperature needs to be maintained at a specific target for a given time), commodity probes may or may not be required. If they are required, the largest examples of the commodity should be selected for probe placement.

4.2.3 Vapour heat treatment

Vapour heat treatment requires:

- monitoring of the air temperature and humidity within the chamber
- monitoring of the core temperature of the commodity
- adequate circulation of vapour heated air to ensure uniformity of temperature and relative humidity in the chamber.

The number of probes will depend on factors such as commodity size and configuration and the type of treatment chamber. The largest examples of the commodity should be selected for probe placement and the probes should be placed in the coldest part of the commodity, as identified by temperature mapping.

The treatment schedule should include:

(1) heat-up time or run-up time: the minimum time allowed for all the temperature probes to reach the prescribed minimum temperature in the commodity

(2) minimum air temperature and heating time: the maximum time to raise the room temperature to the minimum temperature required for the air in the chamber

(3) minimum commodity temperature at the end of heat-up time: the minimum temperature required for all commodity core temperature probes

(4) dwell time: the length of time all commodity temperature probes must maintain the minimum pulp temperature

(5) total heat treatment time: total time from the start of heating of the commodity to the end of dwell time (instead of (1) or in the case of insufficient conditions in (1) (i.e. all commodity temperature probes reach the prescribed minimum commodity temperature in less than the minimum time))

(6) humidity control parameters during treatment.

4.2.4 Dry heat treatment

In dry heat treatment schedules that specify air temperature and moisture requirements, air temperature should be monitored by a wet bulb thermometer.

Wet and dry bulb sensors should be located within the airstream entering a chamber running a one-way airflow. Bulb sensors should be located as far from the wall as possible and away from any heat source. If transverse control or fan reversal is used, additional bulb sensors may be required.

A minimum of one dry bulb and one wet bulb or two dry bulb temperature sensors should be used. The use of multiple sensors ensures that mechanical failure in a sensor during a treatment is detected. This applies to both heat treatments without moisture reduction and kiln-drying processes included in treatments adopted under ISPM 15 (*Regulation of wood packaging material in international trade*).

Dry heat treatment for nuts and seeds should have a minimum of three temperature sensors placed in cold spots determined by temperature mapping studies.

Where the treatment temperature is monitored using probes inserted into the commodity, at least two are recommended, and they should be suitable for measuring commodity core temperature. The overall number of probes will depend on the treatment type, commodity type, commodity size and

configuration, and the type of treatment chamber. Monitoring the core temperature of the commodity, when appropriate, may provide additional information on the verification of dry heat treatment.

4.2.5 Dielectric heat treatment

Because of the nature of dielectric heating, appropriate systems for monitoring and recording temperature that are compatible with this technology are required. Examples include infrared cameras, temperature probes not affected by the electromagnetic fields generated, thermocouples and fibre-optic probes.

Depending on the specific treatment to be applied to a particular commodity (e.g. whether the core or the surface of the commodity is the coolest region identified by temperature mapping), internal temperature probes may or may not be required.

Probes should be positioned appropriately to monitor the uniformity of the treatment temperature in the largest examples of the commodity.

5. Phytosanitary System Integrity

Confidence in the adequacy of a temperature treatment as a phytosanitary measure is primarily based on assurance that the treatment is effective against the pest of concern under specific conditions, the treatment has been properly applied and the commodity has been adequately safeguarded. Efficacy research provides assurance that only effective treatments are used. (Appendix 1 provides guidance for temperature treatment efficacy studies.) Well-designed and closely monitored systems for treatment delivery and safeguarding provide assurance that treatments are properly conducted and consignments are protected from infestation, reinfestation and loss of integrity.

The NPPO of the country in which the treatment facility is located is responsible for ensuring system integrity, so that treatments meet the phytosanitary requirements of the importing country.

5.1 Approval of Facilities

Treatment facilities should be subject to approval (certification or accreditation) by the NPPO in the country in which the facility is located before phytosanitary treatments are applied there.

5.2 Phytosanitary security measures at the treatment facility

It is not usually possible to visually distinguish treated from non-treated commodities. Therefore, the following phytosanitary security measures may be required at the treatment facility:

- a means of moving the commodity from the receiving area to the treatment area without the risk of contamination or infestation
- a means to ensure commodities that are unpackaged or exposed in their packaging are not subject to infestation, reinfestation or contamination immediately following treatment
- handling of treated commodities under conditions that safeguard against contamination or infestation
- adequate segregation and clear identification of treated commodities that safeguards against misidentification of treated and non-treated commodities.

Specific procedures appropriate for each facility and commodity treatment should be approved by the NPPO of the exporting country.

5.3 Labelling

Commodities may be labelled with treatment lot numbers or other features of identification (e.g. locations of packing and the treatment facility, dates of packing and treatment) allowing trace-back.

5.4 Monitoring and auditing

The adequacy of a treatment facility and its processes should be verified through monitoring and auditing of facility treatment records that includes, as necessary, direct oversight. Continuous supervision of treatments should not be necessary, provided treatment programmes are properly designed to ensure a high degree of system integrity for the facility, process and commodity in question. The level of oversight should be sufficient to detect and correct deficiencies promptly.

5.5 Compliance agreement

A compliance agreement should be in place between the treatment facility and the NPPO of the country in which the facility is located. Such an agreement may include the following elements:

- approval of the facility by the NPPO of the country in which the facility is located
- the monitoring programme to be administered by the NPPO of the country in which treatments are conducted
- audit provisions, including unannounced visits
- free access to documentation and records of the treatment facility
- corrective action to be taken in cases of non-compliance.

6. Documentation

The NPPO of the country in which the treatment facility is located is responsible for monitoring record keeping and documentation by the treatment facility and ensuring that records are available to concerned parties. As with any phytosanitary treatment, trace-back capability is essential.

6.1 Documentation of procedures

Documentation of procedures is necessary to ensure that commodities are consistently treated, as required. Process controls and operational parameters are usually established to provide the details necessary for a specific authorization of a treatment facility. Calibration and quality control procedures should be documented by the treatment facility operator. At a minimum, an agreed written procedure should address the following:

- consignment handling procedures before, during and after treatment
- orientation and configuration of the commodity during treatment
- critical process parameters and the means for their monitoring
- temperature calibration and recording and, where appropriate, humidity calibration and recording
- contingency plans and corrective actions to be taken in the event of treatment failure or problems with critical treatment processes
- procedures for handling rejected lots
- labelling (if required), record keeping and documentation requirements.

6.2 Record keeping

Treatment facility operators should be required to keep records. These records should be available to the NPPO when, for example, a trace-back is necessary.

Appropriate records for temperature treatments as phytosanitary measures should be kept by the treatment facility for at least one year to enable the trace-back of treated lots. The facility operator should keep all records for every treatment. Information that may be required to be recorded includes:

- identification of facility
- commodity treated
- purpose of treatment
- target regulated pest
- packer, grower and place of production of the commodity

- lot size and volume, including number of articles or packages
- identifying markings or characteristics
- date of treatment
- any observed deviation from the treatment schedule.

6.3 Documentation by the NPPO

All NPPO procedures should be appropriately documented and records, including those of monitoring inspections made and phytosanitary certificates issued, should be maintained for at least one year. In cases of non-compliance or new or unexpected phytosanitary situations, documentation should be made available as described in ISPM 13.

7. Inspection and Phytosanitary Certification

7.1 Export inspection

The NPPO of the exporting country should ensure the consignment meets the phytosanitary import requirements of the importing country.

Documentation – the basis for certifying the treatment – is verified by checking for completeness and accuracy.

Inspection is done to detect any non-target pests. This inspection may be done before or after the treatment. Where non-target pests are found, the NPPO should verify whether these are regulated by the importing country.

7.2 Phytosanitary certification

Phytosanitary certification in accordance with the IPPC validates the successful completion of a treatment that is required by the importing country. The phytosanitary certificate or its associated documentation should as a minimum specify the treated lot, date of treatment and treatment schedule.

The NPPO may issue a phytosanitary certificate based on treatment information provided to it by an entity approved by the NPPO. In this case, it should be recognized that the phytosanitary certificate may require other information to be supplied to verify that additional phytosanitary requirements have been met (see ISPM 7 (*Phytosanitary certification system*) and ISPM 12 (*Phytosanitary certificate*s)).

7.3 Import inspection

The detection during import inspection of a pest other than the target pest should be assessed for the risk posed, and appropriate action should be taken by the NPPO of the importing country (e.g. detainment of the consignment), considering in particular the effect the treatment may have had on the non-target pest.

NPPOs should clearly identify contingency actions to be taken if live pests are found, which may be as follows:

- target pests: no action, unless the required treatment response was not achieved
- non-target regulated pests:
  - no action if the treatment is believed to have been effective
  - action if there are insufficient data on efficacy or the treatment is not known to have been effective
- non-target non-regulated pests: no action, or emergency action for new pests.

In cases of non-compliance or emergency action, the NPPO of the importing country should notify the NPPO of the exporting country as soon as possible (see ISPM 13 (*Guidelines for the notification of non-compliance and emergency action*)).

7.4 Verification of treatment efficacy

Methods for verification of treatment efficacy in export and import inspections, including laboratory tests or analysis to determine if the required response has been achieved, should be described by the NPPO of the exporting country at the request of the NPPO of the importing country.

In some circumstances pest mortality may not be achieved immediately after application of a temperature treatment, and live but non-viable target pests may be detected on post-treatment inspection. Where this is likely to occur, the treatment schedule should specify that live but non-viable target pests may be detected if inspection is undertaken before 100 percent mortality has occurred.

8. Authority

NPPOs are responsible for the evaluation, approval and monitoring of the application of temperature treatments as phytosanitary measures, including those performed by other authorized entities. NPPOs should cooperate with national, regional and international regulatory agencies concerned with the development, approval, safety and application of temperature treatments, or with the distribution, use or consumption of temperature treated products, as required. Responsibilities should be identified to avoid overlapping, conflicting, inconsistent or unjustified requirements.

The NPPO of the exporting country should have the ability and resources to evaluate, monitor and authorize temperature treatments undertaken as phytosanitary measures. Policies, procedures and requirements developed for the treatment should be consistent with those associated with other phytosanitary measures, except where the use of the treatment requires a different approach because of unique circumstances.

The monitoring, certification, accreditation and approval of facilities for phytosanitary treatments is normally undertaken by the NPPO of the country in which the facility is located, but by cooperative agreement may be undertaken by the NPPO of the importing country or other national authorities.

Memorandums of understanding, compliance agreements or similar documented agreements between the NPPO and the treatment facility operator or other authorized entities should specify process requirements and clarify responsibilities, liabilities and the consequences of non-compliance. Such documents strengthen the enforcement capability of the NPPO if corrective action becomes necessary. The NPPO of the importing country may establish cooperative approval and audit procedures with the NPPO of the exporting country to verify requirements.

This appendix is for reference purposes only and is not a prescriptive part of the standard.

APPENDIX 1: Guidance for temperature treatment efficacy studies

The following guidance is provided to assist researchers in the design of temperature treatment efficacy studies for controlling pests in international trade (Heather & Hallman, 2008). Before designing such studies, ISPM 28 should be consulted for details on phytosanitary treatment requirements. The mortality level and confidence level to be achieved should be specified.

1. Experimental Pest Populations

Pests used in efficacy studies should be no less tolerant to the treatment than would occur under natural conditions. If pest colonies are established for the purposes of supplying pest populations for experimental use, they should have originated from and be replenished at least annually by wild (naturally occurring) pests.

The environmental conditions, most notably the temperature, in which pests are stored or reared in colonies before experimentation should be similar to those encountered by the pests in the wild. Pest mortality, morbidity, fecundity, sex ratio, and growth or development under storage or colony conditions should also be similar to those in the wild.

The identity of all individuals used in an experiment should be confirmed as being taxonomically equivalent to the stated target pest. Voucher specimens of the target pest should be held in a suitable facility for later taxonomic validation should it be required.

The life stages of the pest treated should correspond to those life stages likely to be found in trade and at the time of treatment application.

If the treatment is being developed for more than one taxonomically related pest, small-scale dose-response testing may be undertaken to determine the pest that is most tolerant to the treatment. All subsequent testing may then be performed using this pest.

2. Host Commodity and Infestation

Developmental studies, small-scale dose-response research and large-scale confirmatory trials should all be conducted using the commodity for which the treatment is being developed. If the treatment is being developed for more than one commodity, small-scale dose-response testing may be undertaken to determine the commodity in which the pest is most tolerant. All subsequent testing may then be performed using this commodity.

The condition of the commodity used in the research should reflect the variability expected in trade consignments. The host commodity should be export market quality and should not have been treated previously with insecticides, fungicides or other chemicals, including soaps, dyes and waxes. If the commodity has been exposed to any of these chemicals, data that demonstrate there are no additive effects to the treatment of the exposed pests should be supplied.

The host commodity should be infested with the pest in a manner consistent with that found naturally at the likely point in trade of treatment application. Natural infestation methods should be used where possible, but artificial infestation may be used where it has been demonstrated that such a population is no less tolerant to the treatment than a naturally infested population. The rate of infestation of the commodity used in testing should not result in a reduction in pest tolerance to the treatment or significant modification of the commodity from that found in trade.

The condition of the treated infested commodity, including packaging or other storage conditions, should be consistent with that found in shipments at the likely point in trade of treatment application.

3. Experimental Design

Treatment efficacy studies may include developmental studies, small-scale dose-response research or large-scale confirmatory trials, as required.

Small-scale experiments can be used to determine the following:

- the most treatment-tolerant life stage or condition of the pest
- the likely temperature–time combination that will achieve the desired end-point at the target level of efficacy with a specified confidence level
- the likely temperature–time combination that will maintain suitable commodity condition
- the relative level of tolerance of the target pest to the treatment compared with another pest for which sufficient efficacy has already been demonstrated; if the target pest is less tolerant to the treatment than the other pest, no further work need be undertaken.

Large-scale confirmatory trials or small-scale temperature–time response trials (for later statistical regression analysis) should then be completed on the temperature most likely to achieve the desired level of efficacy without causing economically significant levels of damage to the commodity (e.g. quality standards).

Replicates of treated populations are necessary to allow for adequate statistical analysis. The minimum is three replicates per temperature–time combination in all cases.

Untreated controls are also necessary, with one control per replicate being optimal. Untreated controls should be no less than one-tenth of the size of the treated population, and they should be held in conditions that maximize pest survival.

Conditions immediately before and after the treatment (e.g. during heating up or cooling down) should be equivalent to what could be achieved under trade conditions. After treatment, but before and during the analysis of the experimental results, the treated commodity should be held in conditions equivalent to the untreated control.

4. Facilities, Equipment and Monitoring

The facilities and equipment used should ensure adequate control of the environmental conditions during treatment, and be equivalent or similar to those likely to be used in trade.

Treatment monitoring equipment should be able to monitor the temperature of the commodity and/or the pest with an accuracy of ±0.5 °C over the duration of the treatment. The temperatures measured should be that of the pest, the commodity close to the pest (where the pest is), or the coolest (for heat treatment) or warmest (for cold treatment) part of the commodity.

Monitoring equipment should be appropriate to accurately determine when the end-point of the treatment has been achieved. Measurements should have appropriate levels of sensitivity and specificity to avoid significant ambiguity.

5. Statistical Analysis

It is recommended that statisticians are consulted on the design of treatment efficacy studies and the method of statistical analysis to be used before research is undertaken.

Appropriate correction factors should be used to account for control mortality (e.g. Abbott's correction factor (Abbott, 1925)). While results where control mortality is ≤5 % need not be corrected, control mortality at ≥10 % must be explained. Results will not be considered to support treatments where control mortality is ≥20 % unless this is shown to be normal for the target pest under optimal conditions for survival.

Any potential differences in treatment efficacy that may arise from the scaling up of a treatment from research-scale to trade-scale need to be explained, including those arising from differences in pre-cooling or pre-heating times and the potential impact of these times on pest acclimation or total length of temperature exposure.

In the analysis of the results, variation in the temperature within and between replicates should be examined, and a justification for the target temperature selected should be included in the treatment schedule.

6. Documentation

Accurate and detailed information should be recorded on the species, variety and origin of the pest and the host commodity used in the research on temperature treatment efficacy. Information on the condition of the pest and commodity (i.e. stage of maturity, colour, size, physiological condition) at the time of the study should also be documented.

The following should be submitted for evaluation in support of treatment efficacy:

- "raw" or unmodified mortality or survivorship data from all temperature–time combinations studied
- "raw" data from the temperature probes throughout both the pre-cooling or pre-heating period and the treatment period of each experiment
- information showing the location of infested and "filler" commodities (if applicable)
- information on all items outlined in ISPM 28 and in this appendix.

7. References

Abbott, W.S. 1925. A method of computing the effectiveness of an insecticide. *Journal of Economic Entomology*, 18: 265–267.

Heather, N.W. & Hallman, G.J. 2008. *Pest management and phytosanitary trade barriers*. Wallingford, UK, CABI. 257 pp.

APPENDIX 10: Consistency changes across ISPMs: "trading partner" (2013-009)

(Prepared by TPG 2015-12, approved by SC May 2016)

Background

In reviewing ISPM 17 (*Pest reporting*) for consistency, in its October 2012 meeting, the TPG noted that the term *trading partners* was used in an unclear manner in this standard. Where ISPMs normally intend trading partners to be countries, the mention here could refer to a commercial trading company. In order to clarify the meaning of the term, the TPG asked that it should be added as a subject on the TPG work programme.

The SC May 2013 agreed and added the term to the *List of topics for IPPC standards*.

The TPG in its February 2014 meeting discussed the term.

Where it had previously been envisaged that this term in ISPMs covered both importing and exporting countries, the analysis presented to the meeting demonstrated that:

> in most cases the intended meaning of *trading partners* is *importing countries*. However, the TPG believed that the term *trading partners* potentially creates serious misunderstandings. In particular, it could be read to cover exporting countries and private companies, which was not intended in most cases.

The TPG noted that a definition of *trading partners* would not be useful. It recommended that this term be avoided in ISPMs in the future, and text to this effect was added to the *General recommendation on consistency* (agenda item 7.1 and Appendix 7). Because its use caused serious misunderstanding of ISPMs, the TPG proposed that the process for consistency across standards be used to correct existing ISPMs. Proposals were made to replace *trading partners* where it is used in ISPMs, to be presented to the SC in May 2014.

The SC May 2014 discussed the consistency proposals (under agenda item 8.2) but since "there were some concerns regarding the proposal for replacing all the uses of *trading partners* with *importing countries*", the TPG was asked to review the proposed ink amendments.

The TPG December 2014 discussed the proposed ink amendments and made changes to address the SC concerns.

The SC May 2015 reviewed the proposed ink amendments but "some SC members had some concerns with some of the proposals, either due to the wording or the change in meaning", and invited SC members to submit written comments. Hereafter the TPG should revise the proposals and submit them for an SC e-decision.

The TPG received comments from one SC member and the TPG lead proposed responses and changes to the proposals. The TPG discussed this version in a TPG e-forum (*TPG e-decision_02)* but did not reach agreement and the proposals were presented to the TPG December 2015 meeting, where consensus was reached.

The SC May 2016 reviewed the ink amendments and agreed to them, without proposing additional modifications.

Introduction

The TPG found that in the great majority of cases in ISPMs, trading partner (or trade partner) can be replaced by "NPPOs of importing countries", or a very slightly different rewording can be done, without any apparent change of meaning. In a few cases, trading partner is understood to have another meaning and different rewording is proposed.

The ISPMs that are considered in this table are:

- ISPM 4 (Requirements for the establishment of pest free areas), ISPM 8 (Determination of pest status in an area), ISPM 9 (Guidelines for pest eradication programmes), ISPM 11 (Pest risk analysis for quarantine pests), ISPM 14 (The use of integrated measures in a systems approach for pest risk management), ISPM 15 (Regulation of wood packaging material in international trade), ISPM 17 (Pest reporting), ISPM 24 (Guidelines for the determination and recognition of equivalence of phytosanitary measures), ISPM 29 (Recognition of pest free areas and areas of low pest prevalence) and ISPM 30 (Establishment of areas of low pest prevalence for fruit flies (Tephritidae).

Table 1: Proposed changes across ISPMs in relation to the use of "trading partners"

Row	ISPM	Section / para	Current text	Proposed text	Rationale
1.	4	2.3.4	Documentation may include supporting evidence describing official controls such as survey results, phytosanitary regulations and information on the NPPO as noted in section 1.3. As this type of PFA is likely to involve an agreement between trade partners, its implementation would need to be reviewed and evaluated by the NPPO of the importing country.	Documentation may include supporting evidence describing official controls such as survey results, phytosanitary regulations and information on the NPPO as noted in section 1.3. As this type of PFA is likely to involve an agreement between the exporting and the importing country ~~between trade partners,~~ its implementation would need to be reviewed and evaluated by the NPPO of the importing country.	Because in the section 2.3 - case the PFA is created for export purposes, the 'likely agreement' is **between the exporting and the importing country**. Agreements within the exporting country between producers or producers and the NPPO are not relevant to mention in an ISPM, and such agreements are not providing the rationale for the NPPO to 'review and evaluate'.
2.	8	4, 3rd para, 3rd indent	To observe good reporting practices, NPPOs should: …. inform the NPPO of trading partners as soon as possible, and their regional plant protection organization (RPPO) where appropriate, of relevant changes in pest status and especially reports of newly established pests	To observe good reporting practices, NPPOs should: …. inform the NPPOs of countries that are traded with ~~trading partners~~ as soon as possible, and their regional plant protection organization (RPPO) where appropriate, of relevant changes in pest status and especially reports of newly established pest	The proposed change is consistent with reporting obligations of an NPPO under the IPPC and contributes to facilitation of international trade of plants and plant products. An NPPO has no 'trading partners' and has no obligation to report to trading organizations. The change clarifies that the obligation is towards those countries that the country in question trades with.

Row	ISPM	Section / para	Current text	Proposed text	Rationale
3.	9	Outline of Requirements, 4th para	When an eradication programme is completed, the absence of the pest must be verified. The verification procedure should use criteria established at the beginning of the programme and should be supported by adequate documentation of programme activities and results. The verification stage is integral to the programme, and should involve independent analysis if trading partners require this reassurance. Successful programmes result in a declaration of eradication by the NPPO. When unsuccessful, all aspects of the programme should be reviewed, including the biology of the pest to determine if new information is available, and the cost-benefit of the programme.	When an eradication programme is completed, the absence of the pest must be verified. The verification procedure should use criteria established at the beginning of the programme and should be supported by adequate documentation of programme activities and results. The verification stage is integral to the programme, and should involve independent analysis if ~~trading partners~~ NPPOs of importing countries require this reassurance. Successful programmes result in a declaration of eradication by the NPPO. When unsuccessful, all aspects of the programme should be reviewed, including the biology of the pest to determine if new information is available, and the cost-benefit of the programme.	Under the IPPC, NPPOs of importing countries (and not 'trading partners') have the right to verify/analyse pest status in the exporting countries which includes the results of eradication programs.
4.	9	2.3.2, 4th para	In cases where survey data are to provide the basis for establishing a pest free area for export purposes, it may be desirable to consult trading partners in advance to determine the quantity and quality of data necessary to meet their phytosanitary import requirements.	In cases where survey data are to provide the basis for establishing a pest free area for export purposes, it may be desirable to consult ~~trading partners~~ NPPOs of importing countries in advance to determine the quantity and quality of data necessary to meet their phytosanitary import requirements.	This is up to NPPOs of importing countries (and not 'trading partners') to decide about quantity and quality of data necessary to meet phytosanitary import requirements.
5.	9	3, 2nd para	Direction and coordination should be provided by an official management authority, ensuring that criteria are established to determine when eradication has been achieved and that appropriate documentation and process controls exist to provide sufficient confidence in the results. It may be necessary to consult with trading partners over some aspects of the eradication process.	Direction and coordination should be provided by an official management authority, ensuring that criteria are established to determine when eradication has been achieved and that appropriate documentation and process controls exist to provide sufficient confidence in the results. It may be necessary to consult with NPPOs of importing countries ~~trading partners~~ over some aspects of the eradication process.	NPPOs of importing countries (and not 'trading partners') establish phytosanitary import requirements. Therefore it is important that they accept aspects of the eradication process to consider eradication results reliable.

Row	ISPM	Section / para	Current text	Proposed text	Rationale
6.	9	3.4	NPPOs should ensure that records are kept of information supporting all stages of the eradication process. It is essential that NPPOs maintain such documentation in case trading partners request information to support claims of pest freedom.	NPPOs should ensure that records are kept of information supporting all stages of the eradication process. It is essential that NPPOs maintain such documentation in case ~~trading partners~~ NPPOs of importing countries request information to support claims of pest freedom.	Under the IPPC, NPPOs of importing countries have the obligation to report on request of the exporting countries (and not 'trading partners') of the "occurrence outbreak or spread of pests". This includes records of information on eradication programs.
7.	11	2.3.1.2, 1st para, 1st indent	effects on domestic and export markets, including in particular effects on export market access (The potential consequences for market access which may result if the pest becomes established, should be estimated. This involves considering the extent of any phytosanitary regulations imposed (or likely to be imposed) by trading partners.)	effects on domestic and export markets, including in particular effects on export market access (The potential consequences for market access which may result if the pest becomes established, should be estimated. This involves considering the extent of any phytosanitary regulations imposed (or likely to be imposed) by importing countries ~~trading partners~~.)	Any phytosanitary regulations could be imposed only by importing countries and not by 'trading partners'.
8.	14	8, 1st para	The development of a systems approach may be undertaken by the importing country, or by the exporting country, or ideally through the cooperation of both countries. The process of developing systems approaches may include consultation with industry, the scientific community, and trading partner(s). However, the NPPO of the importing country decides the suitability of the systems approach in meeting its requirements, subject to consideration of technical justification, minimal impact, transparency, non-discrimination, equivalence and operational feasibility.	The development of a systems approach may be undertaken by the importing country, or by the exporting country, or ideally through the cooperation of both countries. The process of developing systems approaches may include consultation with industry, the scientific community, and NPPOs of importing and exporting countries ~~trading partner(s)~~. However, the NPPO of the importing country decides the suitability of the systems approach in meeting its requirements, subject to consideration of technical justification, minimal impact, transparency, non-discrimination, equivalence and operational feasibility.	The systems approaches are primarily developed by NPPOs of importing countries (and not 'trading partners') in cooperation (if needed) with the scientific community and industry.
9.	14	9.1, 2nd para	Where the systems approach has been found unacceptable, the rationale for this decision should be described in detail and	Where the systems approach has been found unacceptable, the rationale for this decision should be described in detail and	Under the ISPM 14, "The development of a systems approach may be undertaken by the importing country, or by the exporting

Row	ISPM	Section / para	Current text	Proposed text	Rationale
			made available to trading partners to facilitate the identification of possible improvements.	made available to NPPOs of the exporting country ~~trading partners~~ to facilitate the identification of possible improvements.	country, or ideally through the cooperation of both countries." This means that when the importing country finds the systems approach unacceptable (not feasible, not sufficiently effective, unnecessarily restrictive or not possible to evaluate) the rationale for this decision should be made available to the NPPO of the exporting country.
10.	15	3.3	NPPOs may accept measures other than those listed in Annex 1 by bilateral arrangement with their trading partners. In such cases, the mark shown in Annex 2 must not be used unless all requirements of this standard have been met.	NPPOs may accept measures other than those listed in Annex 1 by bilateral arrangement ~~with their trading partners~~. In such cases, the mark shown in Annex 2 must not be used unless all requirements of this standard have been met.	The 'bilateral arrangement' (which could include exemptions from ISPM 15 requirements) is an agreement between the exporting and importing countries which means between their NPPOs (and not 'trading partners').
11.	17	Outline of requirements , 1st para	The International Plant Protection Convention requires contracting parties to report on the occurrence, outbreak and spread of pests with the purpose of communicating immediate or potential danger. National plant protection organizations (NPPOs) have the responsibility to collect pest information by surveillance and to verify the pest records thus collected. Occurrence, outbreak or spread of pests that are known (on the basis of observation, previous experience, or pest risk analysis (PRA)) to be of immediate or potential danger should be reported to other countries, in particular to neighbouring countries and trading partners.	The International Plant Protection Convention requires contracting parties to report on the occurrence, outbreak and spread of pests with the purpose of communicating immediate or potential danger. National plant protection organizations (NPPOs) have the responsibility to collect pest information by surveillance and to verify the pest records thus collected. Occurrence, outbreak or spread of pests that are known (on the basis of observation, previous experience, or pest risk analysis (PRA)) to be of immediate or potential danger should be reported to other countries, in particular to NPPOs of neighbouring countries and ~~trading partners~~ of countries that are traded with.	Reporting occurrence, outbreak or spread of pests is an obligation of NPPOs and should be ensured for countries concerned. Using "countries that are traded with" limits this obligation to those countries that are really concerned. If "importing countries" was used it would not be clear *which* importing countries would be intended, whereas it is now clear that it is only those countries that are traded with.
12.	17	2	The main purpose of pest reporting is to communicate immediate or potential danger. Immediate or potential danger normally arises from the occurrence,	The main purpose of pest reporting is to communicate immediate or potential danger. Immediate or potential danger normally arises from the occurrence,	Countries are concerned about occurrence, outbreak or spread of pests if they are quarantine pests for them.

Row	ISPM	Section / para	Current text	Proposed text	Rationale
			outbreak or spread of a pest that is a quarantine pest in the country in which it is detected, or a quarantine pest for neighbouring countries and trading partners.	outbreak or spread of a pest that is a quarantine pest in the country in which it is detected, or a quarantine pest for neighbouring countries and ~~trading partners~~ countries that are traded with.	Using "countries that are traded with" limits this obligation to those countries that are really concerned. If "importing countries" was used it would not be clear *which* importing countries would be intended, whereas it is now clear that it is only those countries that are traded with.
13.	17	4.1, 4th para	Contracting parties have an obligation to report occurrence, outbreak or spread of pests that are not of danger to them but are known to be regulated by or of immediate danger to other countries. This will concern trading partners (for relevant pathways) and neighbouring countries to which the pest could spread without trade.	Contracting parties have an obligation to report occurrence, outbreak or spread of pests that are not of danger to them but are known to be regulated by or of immediate danger to other countries. This will concern importing countries~~trading partners~~ (for relevant pathways) and neighbouring countries to which the pest could spread without trade.	Occurrence, outbreak or spread of pests concern more countries than traders.
14.	17	5.1	Occurrence should normally be reported where the presence of a pest is newly determined, which is known to be a regulated pest by neighbouring countries or trading partners (for relevant pathways).	Occurrence should normally be reported where the presence of a pest is newly determined, which is known to be a regulated pest ~~by~~in neighbouring ~~countries~~ or importing countries ~~trading partners~~ (for relevant pathways).	Countries are concerned about occurrence of pests if these pests are regulated by them (not by traders).
15.	17	5.2, 2nd para	The term outbreak also applies to an unexpected situation associated with an established pest which results in a significant increase in phytosanitary risk to the reporting country, neighbouring countries or trading partners, particularly if it is known that the pest is a regulated pest. Such unexpected situations could include a rapid increase in the pest population, changes in host range the development of a new, more vigorous strain or biotype, or the detection of a new pathway.	The term outbreak also applies to an unexpected situation associated with an established pest which results in a significant increase in phytosanitary risk to the reporting, neighbouring ~~countries~~ or importing countries.~~trading partners~~, particularly if it is known that the pest is a regulated pest. Such unexpected situations could include a rapid increase in the pest population, changes in host range the development of a new, more vigorous strain or biotype, or the detection of a new pathway.	Outbreak and establishment of regulated pests concern more countries (reporting, neighbouring and importing) than traders.

Row	ISPM	Section / para	Current text	Proposed text	Rationale
16.	17	5.3	Spread concerns an established pest that expands its geographical distribution, resulting in a significant increase in pest risk to the reporting country, neighbouring countries or trading partners, particularly if it is known that the pest is regulated.	Spread concerns an established pest that expands its geographical distribution, resulting in a significant increase in pest risk to the reporting~~country~~, neighbouring ~~countries~~ or importing countries ~~trading partners~~, particularly if it is known that the pest is regulated.	Spread of regulated pests concern more countries (reporting, neighbouring and importing) than traders.
17.	24	Annex 1, 1st para	The interactive procedure described below is recommended for assessing phytosanitary measures in order to make a determination as to their equivalence. However, the procedure that trading partners utilize to determine equivalence may vary depending on the circumstances.	The interactive procedure described below is recommended for assessing phytosanitary measures in order to make a determination as to their equivalence. However, the procedure that contracting parties ~~trading partners~~ utilize to determine equivalence may vary depending on the circumstances.	This is the responsibility of contracting parties to determine equivalence. “Countries” is not used for consistency with the text of ISPM 24, which uses “contracting parties”.
18.	24	Annex 1, 2nd para	Recommended steps are: (1) The exporting contracting party communicates its interest in an equivalence determination to its trading partner, indicating the specified commodity, the regulated pest of concern and the existing and proposed alternative measures, including relevant data. At the same time it may request from the importing contracting party the technical justification for the existing measures. In discussions on the determination of equivalence, an agreement including an outline of the steps involved, an agenda and a possible timetable may be established.	Recommended steps are: (1) The exporting contracting party communicates its interest in an equivalence determination to the importing ~~country~~ contracting party~~its trading partner~~, indicating the specified commodity, the regulated pest of concern and the existing and proposed alternative measures, including relevant data. At the same time it may request from the importing contracting party the technical justification for the existing measures. In discussions on the determination of equivalence, an agreement including an outline of the steps involved, an agenda and a possible timetable may be established.	This is the responsibility of importing contracting parties to determine equivalence.
19.	29	1, 3rd para	ISPM 4:1995 points out that, since certain PFAs are likely to involve an agreement between trading partners, their implementation would need to be reviewed and evaluated by the national plant protection organization (NPPO) of the importing country (section 2.3.4).	ISPM 4:1995 points out that, since certain PFAs are likely to involve an agreement between the exporting and the importing country ~~between trading partners~~, their implementation would need to be reviewed and evaluated by the national plant	Because the PFA is created for export purposes, the ‘likely agreement’ is **between the exporting and the importing country**. Agreements within the exporting country between producers or producers and the NPPO are not relevant to mention in an ISPM, and such agreements are not

Row	ISPM	Section / para	Current text	Proposed text	Rationale
				protection organization (NPPO) of the importing country (section 2.3.4). *[note: this is a direct quote of ISPM 4, with the same change as proposed above]*	providing the rationale for the NPPO to 'review and evaluate'.
20.	30	2.1.1, 2nd para, 1st indent	Individual NPPOs may draw on a variety of different factors when determining exactly what an appropriate level of pest prevalence should be for a given FF-ALPP. Some commonly considered factors include the following: levels stipulated by trading partners in order for trade to proceed	Individual NPPOs may draw on a variety of different factors when determining exactly what an appropriate level of pest prevalence should be for a given FF-ALPP. Some commonly considered factors include the following: - levels stipulated by ~~trading partners~~ NPPOs of importing countries in order for trade to proceed	NPPOs of importing countries are responsible for plant health and not traders.

APPENDIX 11: Proposed ink amendments to ISPM 3 to replace "quarantine facility" with the Glossary term "quarantine station"

(Prepared by TPG 2015-12; approved SC May 2016)

Introduction

The Technical Panel for the Glossary (TPG) proposed a revised definition to "quarantine station" in the amendments to ISPM 5, which were adopted by CPM-10 (2015). In the proposed amendments reviewed by the TPG in their February 2014 meeting, the TPG noted that ISPM 3 *(Guidelines for the export, shipment, import and release of biological control agents and other beneficial organism)* used the term "quarantine facility" and that, once the revised definition for "quarantine station" would be adopted, ISPM 3 could have ink amendments to correct this. The below table outlines the proposed ink amendments to ISPM 3 to ensure consistency in the use of Glossary terms.

The SC May 2016 reviewed the ink amendments and agreed to them, without proposing additional modifications.

Table 1 - Ink amendments to replace "quarantine facility" with the Glossary term "quarantine station" (ISPM 3)

Row	Section / para	Current text	Proposed text
1.	Scope, 1st para, last sentence	Provisions are also included for import for research in quarantine facilities of non-indigenous biological control agents and other beneficial organisms.	Provisions are also included for import for research in quarantine stations ~~facilities~~ of non-indigenous biological control agents and other beneficial organisms.
2.	Outline of requirements, 3rd para, 4th indent	- ensure that biological control agents and other beneficial organisms are taken either directly to designated quarantine facilities or mass-rearing facilities or, if appropriate, passed directly for release into the environment	- ensure that biological control agents and other beneficial organisms are taken either directly to designated quarantine stations ~~facilities~~ or mass-rearing facilities or, if appropriate, passed directly for release into the environment
3.	1.2 General responsibilities, 2nd para, 4th indent	- ensure that biological control agents and other beneficial organisms are taken either directly to designated quarantine facilities or, if appropriate, passed to mass rearing facilities or directly for release into the environment	- ensure that biological control agents and other beneficial organisms are taken either directly to designated quarantine stations ~~facilities~~ or, if appropriate, passed to mass rearing facilities or directly for release into the environment
4.	3.1 Responsibilities of the importing contracting party, 3.1.2, 2nd sentence	The contracting party should establish appropriate phytosanitary measures for import, shipment, quarantine facilities (including approval of research facilities, and phytosanitary measures for confinement and disposal) or release of biological control agents appropriate to the assessed risk.	The contracting party should establish appropriate phytosanitary measures for import, shipment, quarantine stations ~~facilities~~ (including approval of research facilities, and phytosanitary measures for confinement and disposal) or release of biological control agents appropriate to the assessed risk.

Row	Section / para	Current text	Proposed text
5.	3.1 Responsibilities of the importing contracting party, 3.1.5. 1st sentence and 2nd sentence	If appropriate, ensure entry of consignments, and processing where required, through quarantine facilities. Where a country does not have secure quarantine facilities, import through a quarantine station in a third country, recognized by the importing contracting party, may be considered.	If appropriate, ensure entry of consignments, and processing where required, through quarantine stations ~~facilities~~. Where a country does not have secure quarantine stations ~~facilities~~, import through a quarantine station in a third country, recognized by the importing contracting party, may be considered.
6.	4.4 Documentary requirements related to research in quarantine, 2nd para, 1st sentence, 3rd and 4th indents	The researcher, in conjunction with the quarantine facility to be used, should also provide the following information: - (…) - (…) - detailed description of the quarantine facility (including security and the competency and qualifications of the staff) - an emergency plan that will be implemented in the case of an escape from the quarantine facility.	The researcher, in conjunction with the quarantine station ~~facility~~ to be used, should also provide the following information: - (…) - (…) - detailed description of the quarantine station ~~facility~~ (including security and the competency and qualifications of the staff) - an emergency plan that will be implemented in the case of an escape from the quarantine station ~~facility~~.
7.	6.1 Inspection	Where required (see section 3.1.5) after checking the documentation, inspection should take place at an officially nominated quarantine facility.	Where required (see section 3.1.5) after checking the documentation, inspection should take place at an officially nominated quarantine station ~~facility~~.

APPENDIX 12: Consistency changes across ISPMs to replace "protected area"

(Prepared by the TPG - TPG_2016-01_e-decision_04; approved by the SC May 2016)

Background

CPM-10 (2015) adopted the deletions of the terms "protected area" and "controlled area" from ISPM 5 *(Glossary of phytosanitary terms)*, as it was agreed that these terms are redundant, making the collection of area-related definitions overly complicated. Both terms were used to illustrate particular cases of regulated area, applied in one case for endangered area (protected area) and in the other for quarantine area (controlled area). They were also used very infrequently in ISPMs (and "controlled area" not used at all).

Only in one case, is "protected area" used to refer to the protection of nature. In the other instances, the term refers to a "regulated area" and that term could be used instead for consistency.

Consequently, in December 2015, the Technical Panel for the Glossary (TPG) noted that ink amendments should be made to replace "protected area" with "regulated area", unless "protected area" was used in the sense of "environmental protection".

The SC May 2016 reviewed the ink amendments and agreed to them, without proposing additional modifications.

Introduction

The ISPMs that are considered in this table are:

ISPM 5 *(Glossary of phytosanitary terms)*, ISPM 11 *(Pest risk analysis for quarantine pests)* and ISPM 30 *(Establishment of areas of low pest prevalence for fruit flies (Tephritidae)*

Table 1 - Proposed ink amendments to replace "protected area" with "regulated area"

Row	ISPM	Section	Current text	Proposed text	Rationale
1.	5	SUPPLEMENT 1 1.1 Official control	Official control includes: - eradication and/or containment in the infested area(s) - surveillance in the endangered area(s) - restrictions related to the movement into and within the protected area(s) including phytosanitary measures applied at import.	Official control includes: - eradication and/or containment in the infested area(s) - surveillance in the endangered area(s) - restrictions related to the movement into and within the regulated area(s) including phytosanitary measures applied at import.	"Protected area" is used with the meaning of "regulated area".
2.	11	2.3.1.2 Indirect pest effects	In the case of the analysis of environmental risks, examples of indirect pest effects on plants and/or their environmental consequences that could be considered include: ….. - significant effects on designated environmentally sensitive or protected areas …..	In the case of the analysis of environmental risks, examples of indirect pest effects on plants and/or their environmental consequences that could be considered include: ….. - significant effects on designated environmentally sensitive or protected areas	In this case, "protected area" is used with a different meaning (referring to the protection of nature) and the word "environmentally" refers to both "sensitive" and "protected". Therefore, no change is proposed.
3.	30	APPENDIX 2 1. An FF-ALPP as a buffer zone	In cases where the biology of the target fruit fly species is such that it is likely to disperse from an infested area into a protected area, it may be necessary to define a buffer zone with a low fruit fly prevalence (as described in ISPM 26). Establishment of the FF-ALPP and FF-PFA should occur at the same time, enabling the FF-ALPP to be defined for the purpose of protecting the FF-PFA.	In cases where the biology of the target fruit fly species is such that it is likely to disperse from an infested area into a regulated area, it may be necessary to define a buffer zone with a low fruit fly prevalence (as described in ISPM 26). Establishment of the FF-ALPP and FF-PFA should occur at the same time, enabling the FF-ALPP to be defined for the purpose of protecting the FF-PFA.	"Protected area" is used with the meaning of "regulated area" (for keeping a pest out of an endangered area).
4.		APPENDIX 2 1.1 Determination of an FF-ALPP as a buffer zone	Determination procedures draw upon those listed in section 1.2 of this standard. In addition, in delimiting the buffer zone, detailed maps may be included showing the boundaries of the area to be	Determination procedures draw upon those listed in section 1.2 of this standard. In addition, in delimiting the buffer zone, detailed maps may be included showing the	"Area to be protected" or "area being protected": the term protected is kept

Row	ISPM	Section	Current text	Proposed text	Rationale
			protected, distribution of hosts, host location, urban areas, entry points and control checkpoints. It is also relevant to include data related to natural biogeographical features such as prevalence of other hosts, climate, and location of valleys, plains, deserts, rivers, lakes and sea, as well as other areas that function as natural barriers. The size of the buffer zone in relation to the size of the area being protected will depend on the biology of the target fruit fly species (including behaviour, reproduction and dispersal capacity), the intrinsic characteristics of the protected area, and the economic and operational feasibility of establishing the FF-ALPP.	boundaries of the area to be protected, distribution of hosts, host location, urban areas, entry points and control checkpoints. It is also relevant to include data related to natural biogeographical features such as prevalence of other hosts, climate, and location of valleys, plains, deserts, rivers, lakes and sea, as well as other areas that function as natural barriers. The size of the buffer zone in relation to the size of the area being protected will depend on the biology of the target fruit fly species (including behaviour, reproduction and dispersal capacity), the intrinsic characteristics of the regulated area, and the economic and operational feasibility of establishing the FF-ALPP.	because it retains the idea of “danger” and “protection” and there is no risk of confusion with environmental protection. Moreover, a buffer zone is also a “regulated area” so replacing “protected” with “regulated” is confusing. “Protected area” is used with the meaning of “regulated area”.

APPENDIX 13: Proposed ink amendment to "practically free" in ISPM 5

(Prepared by TPG 2015-12; approved by the SC May 2016)

Background

The TPG in their December 2015 meeting discussed the Glossary term "practically free" and agreed adding the qualifier "of a consignment, field or place of production" to the term, and consequently remove this text from the definition, which would also align with the term "free from (of a consignment, field or place of production)".

The SC May 2016 reviewed the ink amendment and agreed to it, without proposing additional modifications.

Original term/definition:

practically free	Of a **consignment**, **field**, or **place of production**, without **pests** (or a specific **pest**) in numbers or quantities in excess of those that can be expected to result from, and be consistent with good cultural and handling practices employed in the production and marketing of the **commodity** [FAO, 1990; revised FAO, 1995]

Proposed revision:

practically free (of a **consignment**, **field**, or **place of production)**	~~Of a **consignment**, **field**, or **place of production**,~~ W~~w~~ithout **pests** (or a specific **pest**) in numbers or quantities in excess of those that can be expected to result from, and be consistent with, good cultural and handling practices employed in the production and marketing of the **commodity** [FAO, 1990; revised FAO, 1995]

APPENDIX 14: Summary of SC e-decisions (November 2015 – April 2016)

This paper provides a summary of the outcome of the forums and polls that the Standards Committee (SC) has discussed on the e-decision website since its last meeting in November 2015.

Table 1: SC e-decisions presented between November 2015 and April 2016

E-decision number	Topic for discussion	SC members commenting in the forum	Polls Yes/No
2016_eSC_May_01	SC approval of the draft Diagnostic Protocol *Anguina* spp (2013-003) to member consultation	8	No poll
2016_eSC_ May_02	SC approval of the draft Diagnostic Protocol *Dendroctonus ponderosae* (2006-019) to member consultation	10	No poll
2016_eSC_May _03	SC approval of the draft Diagnostic Protocol for *Phytophthora ramorum* (2004-013) for member consultation	12	No poll
2016_eSC_May_04	SC approval of the draft specification for *Authorization of Non-NPPO entities to perform phytosanitary actions* (2014-002)	9	No poll
2016_eSC_May_05	SC approval of the draft specification *for use of specific import authorizations (Annex to ISPM 20. Guidelines for a phytosanitary import regulatory system)* (2008-006)	11	No poll
2016_eSC_May_06	SC review for the Annotated Glossary, Explanatory document for ISPM 5 *(Glossary of phytosanitary terms)*, 2016 version	9	No poll
2016_eSC_May_07	SC approval of the draft Diagnostic Protocol for *Fusarium circinatum* (2006-021) for member consultation	13	No poll
2016_eSC_May_08	SC selection of experts for TPFQ	10	No poll
2016_eSC_May_09	SC approval of the draft diagnostic protocol for Genus *Liriomyza* (2006-017) to the DP notification period	12	8/0
2016_eSC_May_10	SC approval of draft diagnostic protocol for *Citrus tristeza virus* (2004-021) to the DP notification period	12	No poll
2016_eSC_May_11*	SC approval of the draft diagnostic protocol for *Candidatus* Liberibacter solancearum (2013-001) for member consultation	10	No poll
2016_eSC_May_12*	SC approval of the diagnostic protocol for *Erwinia amylovora* (2004-009) to the DP notification period	8	No poll
2016_eSC_May_13*	SC approval of the diagnostic protocol for the draft diagnostic protocol for *Tomato spotted wilt virus*, *Impatiens necrotic spot virus* and *Watermelon silver mottle virus* (2004-019) to the DP notification period	9	No poll
2016_eSC_May_14*	SC approval of the diagnostic protocol for the draft diagnostic protocol for the draft Diagnostic Protocol for *Aphelenchoides besseyi, A. fragariae* and *A. ritzemabosi* (2006-025) for approval to the DP notification period	11	No poll

2016_eSC_May_15*	SC approval for the technical revision of adopted diagnostic protocol 07: *Potato spindle tuber viroid*	9	No poll

For more background information on SC e-decisions, please consult the e-decision site on the International Phytosanitary Portal (IPP) (https://www.ippc.int/en/work-area-pages/standards-committee/electronic-decisions-by-sc/) and the support documents (https://www.ippc.int/en/work-area-pages/background-e-decisions/)

* Five SC e-forums (2016_eSC_May_11, 2016_eSC_May_12, 2016_eSC_May_13, 2016_eSC_May_14 and 2016_eSC_May_15) were open on the 12 April and the closing date (26 April) is after this paper was developed and posted to the SC May 2016 meeting. The forum summaries of these SC e-forums will be presented to the SC May 2016 meeting orally and they will be included in the meeting report as an appendix.

2016_eSC_May_01: SC approval of the draft Diagnostic Protocol *Anguina* spp (2013-003) for member consultation

The forum was open from 09 to 23 December. The Secretariat reviewed SC member's responses. Eight members commented and approved the draft DP. As no modifications were proposed a poll was not necessary.

SC e-decision

The SC approved to submit the draft diagnostic protocol for *Anguina* spp. (2013-003) for member consultation

2016_eSC_May_02: SC approval of the draft Diagnostic Protocol *Dendroctonus ponderosae* (2006-019) for member consultation

The forum was open from 09 to 23 December. The Secretariat reviewed SC member's responses. Ten members commented and approved the draft DP. As no modifications were proposed a poll was not necessary.

SC e-decision

The SC approved to submit the draft diagnostic protocol for *Dendroctonus ponderosae* syn. *Scolytus scolytus* (2006-019), for member consultation

2016_eSC_May_03: SC approval of the draft Diagnostic Protocol for *Phytophthora ramorum* (2004-013) for member consultation

The forum was open from 10 to 24 February. The Secretariat reviewed SC member's responses. Twelve members commented and approved the draft DP. As no modifications were proposed a poll was not necessary.

SC e-decision

The SC approved to submit the draft diagnostic protocol for *Phytophthora ramorum* (2004-013) for member consultation

2016_eSC_May_04: SC approval of the draft specification for *Authorization of Non-NPPO entities to perform phytosanitary actions* (2014-002)

The forum was open from 10 to 24 February. The Secretariat reviewed SC member's responses. Nine members commented and approved the specification. As no modifications were proposed a poll was not necessary.

SC e-decision

The SC approved the specification on *Authorization of entities to perform phytosanitary actions* (2014-002) and is now assigned specification number 65.

2016_eSC_May_05: SC approval of the draft specification *for use of specific import authorizations (Annex to ISPM 20. Guidelines for a phytosanitary import regulatory system)* (2008-006)

The forum was open from 10 to 24 February. The Secretariat reviewed SC member's responses. Eleven members commented and approved the specification. As no modifications were proposed a poll was not necessary.

SC e-decision

The SC approved the specification on *Use of specific import authorizations (Annex to ISPM 20. Guidelines for a phytosanitary import regulatory system)* (2008-006) and assigned to it specification number 64.

2016_eSC_May_06: SC review for the Annotated Glossary, Explanatory document for ISPM 5 *(Glossary of phytosanitary terms)*, 2016 version

The forum was open from 10 to 24 February. The Secretariat reviewed SC member's comments. Nine members commented in the forum and reviewed the annotated glossary. All of them indicated that they didn't have any specific comment on the annotated glossary and two of them highlighted the usefulness of the document.

The IPPC Secretariat has now published the annotated glossary on the IPP website (available at: https://www.ippc.int/en/core-activities/standards-setting/explanatory-documents-international-standards-phytosanitary-measures/).

2016_eSC_May_07: SC approval of the draft Diagnostic Protocol for *Fusarium circinatum* (2006-021) for member consultation

The forum was open from 10 to 24 March.

The Secretariat reviewed SC member's responses. Thirteen members commented and approved the draft DP. As no modifications were proposed a poll was not necessary.

SC e-decision

The SC approved to submit the draft diagnostic protocol for *Fusarium circinatum* (2006-021) for member consultation.

2016_eSC_May_08: SC selection of experts for TPFQ

The forum was open from 10 to 24 February.

The Secretariat reviewed SC member's responses. Ten members commented with one member questioning the confusion in the 'Summary of Nominations' form of the stated English proficiencies of Mr Zong SHIXIANG (CHINA) and Mr. Shi JUAN (CHINA). The Secretariat acknowledged the editorial error in the nomination form and noted that Mr Zong SHIXIANG (CHINA) has strong evidence of proficiency in English skills (e.g. is a referee for an English language journal, and has published in English language journals).

SC e-decision

The SC agreed that:

(1) the following experts be selected as members of the TPFQ for a five year term starting in 2016*:*

- Mr John Tyrone JONES (USA),
- Mr Lucio MONTECCHIO (ITALY),

- Mr Krzysztof SUPRUNIUK (POLAND)
- Mr Zong SHIXIANG (CHINA)

(2) Mr Moctar SACANDE (BURKINA FASO) be invited as an expert to the TPFQ face to face meeting in Victoria Canada June 2016.

As previously agreed, SC members are kindly asked to inform nominees who have not been selected from their own regions.

2016_eSC_May_09: SC approval of the draft Genus *Liriomyza* (2006-017) to the DP notification period

The forum was open from 10 to 24 February.

The Secretariat reviewed SC member's responses. Twelve members commented with one member proposing changes to the draft. The SC member and the discipline lead discussed the proposed changes which were as follows:

Para 28 Line 6: A recent molecular survey of 664 flies matching the description of L. langei/ L. huidobrensis from six counties in California found only L. langei, indicating that the presence of L. huidobrensis is unlikely (Scheffer, Lewis, Gaimari, Reitz 2014, J Econ Ent. 107: 1959-1964).

Incorporated with slight Modification: "A subsequent molecular survey ….."

- Para 51 line 2: at -20 to -4 C (NOT "frozen" bcs DNA will disintegrate, that's why they're in EtOH – to prevent freezing solid; if stored frozen specimens should be dry and at -80C

Modified: "Specimens required for molecular diagnostic work should be killed and preserved in 96–100% ethanol and stored at <4°C) or preserved on FTA cards (Whatman)[1] (Blacket *et al*., 2015).

As modifications were proposed a poll was organized from 30 March to 15 April. Eight members agreed to the proposed modifications.

SC e-decision

The SC approved to submit the draft diagnostic protocol for Genus *Liriomyza* (2006-017) Citrus to the DP notification period.

2016_eSC_May_10: SC approval of draft diagnostic protocol for *Citrus tristeza virus* (2004-021) to the DP notification period

The forum was open from 10 to 24 March.

The Secretariat reviewed SC member's responses. Twelve members commented and approved the draft DP. As no modifications were proposed a poll was not necessary.

SC e-decision

The SC approved to submit the draft diagnostic protocol for *Citrus tristeza virus* (2004-021) to the DP notification period.

2016_eSC_May_11: SC approval of draft diagnostic protocol for *Candidatus* Liberibacter solancearum (2013-001) for member consultation

The forum was open from 12 to 26 April.

The Secretariat reviewed SC member's responses. 10 members commented and approved the draft DP for *Candidatus* Liberibacter solanacearum (2013-001) for member consultation

SC e-decision

The SC approved to submit the draft diagnostic protocol *Candidatus* Liberibacter solanacearum (2013-001) for member consultation

2016_eSC_May_12: SC approval of the diagnostic protocol for *Erwinia amylovora* (2004-009) to the DP notification period

The forum was open from 12 to 26 April.

The Secretariat reviewed SC member's responses. Eight members commented and approved the draft DP and the responses to member comments. As no modifications were proposed a poll will not be necessary.

SC e-decision

The SC approved to submit the draft diagnostic protocol for *Erwinia amylovora* (2004-009) to be submitted to the 45-day DP Notification Period starting on the 01 July 2016 for adoption.

2016_eSC_May_13: SC approval of the diagnostic protocol for the draft diagnostic protocol for *Tomato spotted wilt virus, Impatiens necrotic spot virus* and *Watermelon silver mottle virus* (2004-019) to the DP notification period

The forum was open from 12 to 26 April.

The Secretariat reviewed SC member's responses. Nine members commented and approved the draft DP and the responses to member comments. As no modifications were proposed a poll will not be necessary

SC e-decision

The SC approved to submit the draft diagnostic protocol for *Tomato spotted wilt virus, Impatiens necrotic spot virus* and *Watermelon silver mottle virus* (2004-019) to be submitted to the 45-day DP Notification Period starting on the 01 July 2016 for adoption.

2016_eSC_May_14: SC approval of the diagnostic protocol for the draft diagnostic protocol for the draft Diagnostic Protocol for *Aphelenchoides besseyi, A. fragariae* and *A. ritzemabosi* (2006-025) for approval to the DP notification period

The forum was open from 12 to 26 April.

The Secretariat reviewed SC member's responses. Eleven members commented and approved the draft DP and the responses to member comments. As no modifications were proposed a poll will not be necessary.

SC e-decision

The SC approved to submit the draft diagnostic protocol for *Aphelenchoides besseyi, A. fragariae* and *A. ritzemabosi* (2006-025) to be submitted to the 45-days DP Notification Period starting on the 01 July 2016.

2016_eSC_May_15: SC approval for the technical revision of adopted diagnostic protocol 07: *Potato spindle tuber viroid*

The forum was open from 12 to 26 April.

The Secretariat reviewed SC member's responses. Nine members commented and approved the technical revision as proposed by the TPDP to the adopted DP 07: *Potato spindle tuber viroid.*

SC e-decision

The SC approved the technical revision as proposed by the TPDP to the adopted DP 07: *Potato spindle tuber viroid.*

APPENDIX 15: Action points arising from the SC May 2016 meeting

Action	Para # / Sect #	Responsible	Deadline
Prepare a proposal for an IRSS study on commodity standards.	3.1 [21]	Small SC-IRSS group (Lead: Mr Rajesh RAMARATHAM, Mr Lifeng WU, Ezequiel FERRO, Jan Bart ROSSEL) (Send to Secretariat (ippc@fao.org). Then proposal will be submitted to SC e-decision.)	31-Jul-2016
Submit a paper on the relationship between the SC and the Implementation Committee on how the new IPPC subsidiary body on implementation could operate and interact with the SC in achieving their respective work programmes to the Focus group on establishing an Implementation Committee.	3.2 [23]	Secretariat	31-May-2016
Identify a suitable time for the joint meeting of the SC and CDC to meet, once these Terms of reference have been discussed and agreed upon by CPM.	3.2 [23]	Secretariat	After CPM-12 (2017)
Archive the issues identified by the NROAG in the Secretariat's "error tracking database".	3.2 [28]	Secretariat	N/A
Submit ideas for the new IRSS project cycle by 30 June 2016 to the Secretariat (ippc@fao.org).	3.3 [43]	SC members	30-Jun-2016
Provide proposals for the new IRSS project cycle (paper to be sent to the Secretariat (ippc@fao.org) by 31 July 2016 for presentation to SC e-decision).	3.3 [43]	Small SC-IRSS group (Lead: Mr Rajesh RAMARATHAM, Mr Lifeng WU, Ezequiel FERRO, Jan Bart ROSSEL) (Send to Secretariat (ippc@fao.org). Then proposal will be submitted to SC e-decision.)	31-Jul-2016
Consider any potential implementation issues with the draft ISPM International movement of wood (2006-029) and report back to the SC November 2016 meeting.	4.1 [64]	TPFQ (To SC November (document submission deadline)	30-Sep-2016
Develop a paper proposing an IRSS study/survey on the feasibility of the certificate and send it to the Secretariat (ippc@fao.org) by 31 July 2016 (see also section 3.3. of this report) for the SC to review and agree following via e-decision).	5.4 [130]	Small SC-IRSS group (Lead: Mr Rajesh RAMARATHAM, Mr Lifeng WU, Ezequiel FERRO, Jan Bart ROSSEL)	31-Jul-2016
Continue developing the draft ISPM *International movement of cut flowers and foliage* (2008-005) with an intent to present it back to the SC November 2016.	5.5 [133]	Small SC group (Steward/Lead: Ms Ana Lilia MONTEALEGRE LARA, Mr Ezequiel FERRO, Mr Nico HORN, Ms Esther KIMANI) (to SC November (document submission deadline draft standards)	1-Sep-2016
Provide conceptual comments or general remarks on the draft ISPM *International movement of cut flowers and foliage* (2008-005) to be sent to the Steward, with copy to the small SC group and the Secretariat (ippc@fao.org), by 31 May 2016.	5.5 [133]	SC members	31-May-2016)

Action	Para # / Sect #	Responsible	Deadline
Organize the review of the following draft specifications by SC members through the OCS (3 weeks): - Audit in the phytosanitary context (2015-003); - Focused revision of ISPM 12: Phytosanitary certificates (2015-011); - Supplement to ISPM 11: Guidance on the concept of the likelihood of establishment component of a pest risk analysis for quarantine pests (2015-010).	7 [160]	Secretariat	1-Dec-2016
Inform the unsuccessful nominees for the TPFQ from their regions that they had not been selected by the SC.	8.3 [172]	SC members	N/A
Investigate further developing a searchable database on phytosanitary treatments that would include both adopted phytosanitary treatments and treatments posted on the Phytosanitary resources page.	9.1 [183]	Secretariat	24-Mar-2017
Invite a representative from ePhyto SG to participate in a dedicated part of the TPG 2016 face-to-face meeting when dealing with the definition of “commodity”, “commodity class” (2015-013) and actual terms belonging to those two categories.	9.2 [191]	Secretariat	1-Sep-2016
Consider if “process load” is a useful term in the IPPC context, whether it is useful and commonly used for other treatment types than irradiation, and whether it could be used more frequently in ISPMs in the future.	9.2 [191]	TPPT	August 2016 TPPT meeting
Prepare a presentation of the rationale and impact of the reorganization for presentation to a Plenary session during CPM-12 (2017).	9.4 [212]	TPFF Steward + Secretariat	CPM-12 (2017)
Discuss the best approach for developing a “Guide for implementing fruit fly ISPMs” with the Joint FAO/IAEA Division, following the future decision on the reorganization of the suite of fruit fly standards.	9.4 [212]	Secretariat	After CPM-12 (2017)
Present the proposed reorganization of IPPC fruit fly standards to CPM along with the details of all positions maintained for discussion and appropriate action by the CPM; present ink amendments in the standards mentioned in Attachment 1-6 of document 05_SC_May_2016, as modified, to CPM for noting dependent on the CPM decision on the reorganization of the IPPC fruit fly standards.	9.4.1 [225]	Secretariat	CPM-12 (2017) (by CPM-12 posting deadline)
Consider the SC proposals for discussions on concepts and implementation issues related to draft or adopted standards, special topics session and side events.	10 [231]	Bureau	June 2016 Bureau meeting
Invite Diego QUIROGA (Argentina) as an invited expert to attend the EWG on the *International movement of grain* (19-23 September 2016, Melbourne, Australia)	13.1 [249]	Secretariat	17-Jun-2016
Submit electronic evaluation of the SC meeting	15 [252]	SC members	1-Jun-2016