

## 2017 SECOND CONSULTATION

*1 July – 30 September 2017*

### Compiled comments for the draft ISPM on Requirements for the use of temperature treatments as phytosanitary measures (2014-005)

#### Summary comments

Name	Summary
Cameroon [Africa]	Revue achevée
EPPO [Central Asia and Eastern Europe] Σ	Finalised by the EPPO Secretariat on behalf of its 51 Member Countries.
European Union [European Union]	Comments finalised by the European Commission on behalf of the EU and its 28 Member States on 28/09/2017.
Malaysia [Asia]	Malaysia agreed with APPPC
Samoa [South West Pacific]	no further comments
South Africa [Africa]	NO comments from the National Plant Protection Organisation of South Africa

#	Para	Text	Comment
1	G	(General Comment)	<p><b>Congo, DR</b> IL nous est difficile de faire un bon commentaire car ce draft est posté uniquement en Anglais ,alors que la consultation doit se faire dans toutes les langues de la FAO ,la mise en oeuvre des NIMPs reste une des priorités de la CIPV d'ou l'interet de voir toutes les ONPV intereragir dans la langue de la FAO qu'ils maitrisent <i>Category : TRANSLATION</i></p>
2	G	(General Comment)	<p><b>Tajikistan</b> We support all comments done by EPPO via OCS <i>Category : SUBSTANTIVE</i></p>
3	G	(General Comment)	<p><b>Costa Rica</b> We agree with this comment COSAVE and others contries: "As commented in the first consultation, Appendix 1 on studies for temperature treatment efficacy are not a requirement of this standard and should be deleted. The standard provides technical guidances on the application of treatments with a stated efficacy. Appendix 1 provides useful information to contracting parties, but should be included as an appendix of ISPM 28. Taking into account that the revision of ISPM 18 is in the LOT for ISPMs, we also will suggest to include Appendix 2 of ISPM 18 as an appendix of ISPM 28" <i>Category : TECHNICAL</i></p>
4	G	(General Comment)	<p><b>APPPC</b> To include competency of staff or staff training as in other standards for consistency. <b>Nepal</b> Agreed to include competency of staff or training <b>Thailand</b></p>

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			Thailand support this APPPC comment.  <b>Viet Nam</b> Vietnam support this APPPC comment. <i>Category : SUBSTANTIVE</i>
5	G	(General Comment)	<b>Canada</b> Canada supports the Draft ISPM: Requirements for the use of temperature treatments as phytosanitary measures (2014-005).  Substantive, technical and editorial comments are presented for consideration. <i>Category : SUBSTANTIVE</i>
6	G	(General Comment)	<b>Peru</b> As commented in the first consultation, Appendix 1 on studies for temperature treatment efficacy are not a requirement of this standard and should be deleted. The standard provides technical guidances on the application of treatments with a stated efficacy. Appendix 1 provides useful information to contracting parties, but should be included as an appendix of ISPM 28. Taking into account that the revision of ISPM 18 is in the LOT for ISPMs, we also will suggest to include Appendix 2 of ISPM 18 as an appendix of ISPM 28. <i>Category : SUBSTANTIVE</i>
7	G	(General Comment)	<b>Azerbaijan</b> Azerbaijan would like to formally endorse the EPPO coments submitted via the IPPC Online Comment System <i>Category : SUBSTANTIVE</i>
8	G	(General Comment)	<b>Nicaragua</b> Se solicita se incluya en la presente propuesta la calibración de los equipos, mapeo de temperaturas. El apéndice N° se propone sea trasladado como apéndice de la NIMF N° 28. Es preciso tener estudios de eficacia. <i>Category : TECHNICAL</i>
9	G	(General Comment)	<b>Cuba</b> No hay comentarios para la NIMF <i>Category : TECHNICAL</i>
10	G	(General Comment)	<b>Mozambique</b> The NPPO of Mozambique has no comments on this standard. <i>Category : SUBSTANTIVE</i>
11	G	(General Comment)	<b>Brazil</b> As commented in the first consultation, Appendix 1 on studies for temperature treatment efficacy are not a requirement of this standard and should be deleted. The standard provides technical guidances on the application of treatments with a stated efficacy. Appendix 1 provides useful information to contracting parties, but should be included as an appendix of ISPM 28. Taking into account that the revision of ISPM 18 is in the LOT for ISPMs, we also will suggest to include Appendix 2 of ISPM 18 as an appendix of ISPM 28. <i>Category : SUBSTANTIVE</i>
12	G	(General Comment)	<b>Argentina</b> As commented in the first consultation, Appendix 1 on studies for temperature

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			treatment efficacy are not a requirement of this standard and should be deleted. The standard provides technical guidances on the application of treatments with a stated efficacy. Appendix 1 provides useful information to contracting parties, but should be included as an appendix of ISPM 28. Taking into account that the revision of ISPM 18 is in the LOT for ISPMs, we also will suggest to include Appendix 2 of ISPM 18 as an appendix of ISPM 28. <i>Category : SUBSTANTIVE</i>
13	G	(General Comment)	<b>Ozone Secretariat</b> Concerned that the various Standards need to line up and be consistent. Research requirements are separate to the routine application of a treatment. All of the elements for a successful treatment need to be in the vertical stack of ISPMs including the requirements for the use of a treatment measure and the relevant PT of ISPM 28. Currently they do not.  The background and section 1 differ from Fumigation ISPM. The general wording and sections need to line up between the heat and fumigation ISPM. <i>Category : SUBSTANTIVE</i>
14	G	(General Comment)	<b>Guyana</b> Guyana has no objection to this standard <i>Category : SUBSTANTIVE</i>
15	G	(General Comment)	<b>European Union</b> 'Monitoring' (and all its derivatives) is defined in ISPM 5 ("an official ongoing process to verify phytosanitary standards") with another meaning than the one usually used in this Standard (i.e. measuring/verifying parameters over a period of time). It seems that the term monitoring can be kept as it is in this standard because it is a term commonly used and understood in its common dictionary meaning ("measure at intervals") and for which no exact synonym exists. However, we would like to signal to the TPG that the use of this term in this Standard (except for sections 5. to 8.) is not according to ISPM 5. In addition, the same problem is noted for some occurrences of the term 'monitoring' in ISPMs 15 and 18. <i>Category : TECHNICAL</i>
16	G	(General Comment)	<b>Mongolia</b> Mongolia agree to include competency of staff or training <i>Category : SUBSTANTIVE</i>
17	G	(General Comment)	<b>EPPO</b> 'Monitoring' (and all its derivatives) is defined in ISPM 5 ("an official ongoing process to verify phytosanitary standards") with another meaning than the one usually used in this Standard (i.e. measuring/verifying parameters over a period of time). It seems that the term monitoring can be kept as it is in this standard because it is a term commonly used and understood in its common dictionary meaning ("measure at intervals") and for which no exact synonym exists. However, we would like to signal to the TPG that the use of this term in this Standard (except for sections 5. to 8.) is not according to ISPM 5. In addition, the same problem is noted for some occurrences of the term 'monitoring' in ISPMs 15 and 18.

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			<i>Category : TECHNICAL</i>
18	G	(General Comment)	<b>India</b> 3.2.1 Hot Water Treatment: and some seeds for sowing purpose (eg. Paddy, Ornamental palm seeds, etc.)- to be added after- This treatment is used primarily for certain fruits that are hosts of fruit flies, but may also be used for plants for planting (e.g. ornamental bulbs)  <i>Category : SUBSTANTIVE</i>
19	G	(General Comment)	<b>New Zealand</b> Again, there are areas of inconsistency between the temp and fum stds. <i>Category : EDITORIAL</i>
20	G	(General Comment)	<b>Bahamas</b> The use of temperature as a phytosanitary measure is not a standard that the Bahamas imposes for regulated pests on regulated articles. This clearly heightens pest risks associated with trade. The Bahamas therefore supports the adoption of temperature treatments as phytosanitary measures. <i>Category : SUBSTANTIVE</i>
21	G	(General Comment)	<b>Uruguay</b> As commented during first consultation, Appendix 1 on studies for temperature treatment efficacy are not a requirement of this standard, and should be deleted. The standard provides technical guidance on the application of temperature treatments with a stated efficacy. Appendix 1 provides useful information to contracting parties, but should be included as an Appendix of ISPM 28. Taking into account that the revision of ISPM 18 is in the LOT for ISPMs, we also suggest to include Appendix 2 to ISPM 18 as an Appendix of ISPM 28. <i>Category : SUBSTANTIVE</i>
22	G	(General Comment)	<b>Honduras</b> HONDURAS NO TIENE COMENTARIOS <i>Category : TECHNICAL</i>
23	G	(General Comment)	<b>Lao People's Democratic Republic</b> Lao PDR has no comment. <i>Category : SUBSTANTIVE</i>
24	G	(General Comment)	<b>Algeria</b> No Comment <i>Category : TECHNICAL</i>
25	G	(General Comment)	<b>PPPO</b> Have no comments to make. Agree with the contents of the draft <i>Category : EDITORIAL</i>
26	G	(General Comment)	<b>COSAVE</b> As commented in the first consultation, appendix 1 on studies for treatment efficacy are not a requirement of this standard and should be deleted. The standard provides technical guidances on the application of treatments with a stated efficacy. Appendix 1 provides useful information to contracting parties, but should be included as an appendix of ISPM 28.

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			Taking into account that the revision of ISPM 18 is in the LOT for ISPMs, we also suggest to include Appendix 2 of ISPM 18 as an appendix of ISPM 28. <i>Category : SUBSTANTIVE</i>
27	1	<b>Draft ISPM: Requirements for the use of temperature treatments as phytosanitary measures (2014-005)</b>	<b>Cameroon</b> Nous apprécions beaucoup l'adoption de ces exigences, car elles donnent un cadre générique pour la réalisation des traitements thermiques. Ceci permettra de mieux encadrer la mise en oeuvre des protocoles des traitements annexés à la NIMP28, notamment, TP15, TP16, TP17, TP18 et TP21. Il sera logique qu'une NIMP spécifique soit également adoptée pour encadrer les autres méthodes de traitement, notamment l'irradiation. Ceci permettra de disposer d'un corpus cohérent au sein duquel d'autres protocoles viendraient s'insérer logiquement. Il reste intéressant de questionner sur le moyen terme, l'existence de la NIMP28 si des normes spécifiques sont prises pour regrouper et encadrer les différents groupes de méthodes de traitement. <i>Category : TECHNICAL</i>
28	31	<b>Scope</b>	<b>Canada</b> The draft needs to be specific as to what type of steam treatment is not addressed in this document. Vapour heat treatment(VHT), including high temperature forced air (HTFA) are steam treatment. <i>Category : TECHNICAL</i>
29	32	This standard <sup>1</sup> provides technical guidance on the <u>specific procedures for the application of various types of temperature treatment as phytosanitary measures for regulated pests on regulated articles. This standard does not provide details on specific treatments fumigation.</u>	<b>Ozone Secretariat</b> The general wording and sections need to line up between the heat and fumigation ISPM <i>Category : SUBSTANTIVE</i>
30	32	This standard <sup>1</sup> provides technical guidance on the application of various types of temperature treatment as phytosanitary measures for regulated pests on regulated articles. This standard does not provide details on specific treatments.	<b>European Union</b> The footnote 1, stating some sorts of requirements more or less beyond the IPPC, should definitely not appear in the scope. <i>Category : SUBSTANTIVE</i>
31	32	This standard <sup>1</sup> provides technical guidance on the application of various types of temperature <del>treatment</del> treatments as phytosanitary measures for regulated pests on regulated articles. This standard does not provide details on specific treatments.	<b>European Union</b> Plural. <i>Category : EDITORIAL</i>
32	32	This standard <sup>1</sup> provides technical guidance on the application of various types of temperature <del>treatment</del> treatments as phytosanitary measures for regulated pests on regulated articles. This standard does not provide details on specific treatments.	<b>EPPO</b> Plural. <i>Category : EDITORIAL</i>
33	32	This standard <sup>1</sup> provides technical guidance on the application of various types of temperature treatment as phytosanitary measures for regulated pests on regulated articles. This standard does not provide details on specific treatments.	<b>EPPO</b> The footnote 1, stating some sorts of requirements more or less beyond the IPPC, should definitely not appear in the scope. The text may be placed in the background or impact section. <i>Category : SUBSTANTIVE</i>
34	34	<del>Temperature treatments using steam, quick freezing and Joule (ohmic) heating</del>	<b>European Union</b> It is not clear why they are not addressed.

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		<del>are not addressed in this standard.</del>	Is the guidance in the draft incompatible with those types of treatments? <i>Category : SUBSTANTIVE</i>
35	34	<del>Temperature treatments using steam, quick freezing and Joule (ohmic) heating are not addressed in this standard.</del>	<b>EPPO</b> It is not clear why they are not addressed. Is the guidance in the draft incompatible with those types of treatments? <i>Category : SUBSTANTIVE</i>
36	39	<b>Outline of Requirements</b>	<b>European Union</b> The current design of the Outline is not in conformance with other ISPMs. The Outline should in a condensed form summarize the main requirements of the core text. <i>Category : TECHNICAL</i>
37	39	<b>Outline of Requirements</b>	<b>EPPO</b> The current design of the Outline is not in conformance with other ISPMs. The Outline should in a condensed form summarize the main requirements of the core text. <i>Category : TECHNICAL</i>
38	41	<del>This standard provides guidance on the main operational requirements for each type of using temperature treatment in order as a phytosanitary measure to ensure that the treatments are applied effectively achieve pest mortality at a specified efficacy.</del>	<b>European Union</b> The current design of the Outline is not in conformance with other ISPMs. The Outline should in a condensed form summarize the main requirements of the core text. <i>Category : TECHNICAL</i>
39	41	<del>This standard provides guidance on the main operational requirements for each type. The objective of using temperature treatment in order as a phytosanitary measure is to ensure that the treatments are applied effectively achieve pest mortality at a specified efficacy.</del>	<b>EPPO</b> The current design of the Outline is not in conformance with other ISPMs. The Outline should in a condensed form summarize the main requirements of the core text. <i>Category : TECHNICAL</i>
40	42	This standard also provides guidance on monitoring and recording systems and temperature mapping of facilities to ensure that the specific facility–commodity configuration will enable the treatment to be effective.	<b>United States of America</b> Please clarify containerized transportation. Does it cover both facilities and containers? Be explicit if both in-transit cold treatments and facility cold treatments are included. <i>Category : TECHNICAL</i>
41	42	<del>This standard also provides guidance on monitoring and recording systems and temperature mapping. The requirement of facilities to ensure a temperature treatment is that the specific facility–commodity configuration will enable required temperature is attained through the treatment to be effective commodity for the required duration.</del>	<b>European Union</b> The current design of the Outline is not in conformance with other ISPMs. The Outline should in a condensed form summarize the main requirements of the core text. <i>Category : TECHNICAL</i>
42	42	<del>This standard also provides guidance on monitoring and recording systems and temperature mapping. The requiremnet of facilities to ensure a temperature treatment is that the specific facility–commodity configuration will enable required temperature is attained throughout the treatment to be effective commodity for the required duration.</del>	<b>EPPO</b> The current design of the Outline is not in conformance with other ISPMs. The Outline should in a condensed form summarize the main requirements of the core text. <i>Category : TECHNICAL</i>
43	43	<del>Furthermore, guidance is provided to The NPPOs on NPPO should be</del>	<b>European Union</b> The current design of the Outline is not in conformance with other ISPMs. The

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		<del>responsible for approving and overseeing the treatment facilities, and should ensure the accurate measuring, recoding and documentation of treatments applied approval of facilities that apply temperature treatments as phytosanitary measures. Guidance is also given on measures that prevent contamination or reinfestation of commodities after treatment, and on record keeping.</del>	Outline should in a condensed form summarize the main requirements of the core text. <i>Category : TECHNICAL</i>
44	43	Furthermore, guidance is provided to NPPOs on approval of facilities that apply temperature treatments as phytosanitary measures. Guidance is also given on measures that prevent <del>contamination-infestation</del> or <del>reinfestation</del> <u>contamination</u> of commodities after treatment, and on record keeping.	<b>European Union</b> The focus should be put on "infestation" rather than on "contamination". The commodities are not necessarily infested before treatment. See paragraphs 153 and 154. <i>Category : EDITORIAL</i>
45	43	<del>Furthermore, guidance is provided to</del> The NPPOs onNPPO should is <u>responsible for approving and overseeing the treatment facilities, and should ensure the accurate measuring, recoding and documentation of treatments applied</u> <del>approval of facilities that apply temperature treatments as phytosanitary measures. Guidance is also given on measures that prevent contamination or reinfestation of commodities after treatment, and on record keeping.</del>	<b>Eppo</b> The current design of the Outline is not in conformance with other ISPMs. The Outline should in a condensed form summarize the main requirements of the core text.  Furthermore please note that (if proposed changes are not retained) the focus should be put on "infestation" rather than on "contamination". The commodities are not necessarily infested before treatment. See paragraphs 153 and 154. <i>Category : TECHNICAL</i>
46	45	<u>Phytosanitary treatments based on temperature are considered to be effective when the specific temperature-time combination required for the stated efficacy to be achieved is attained throughout the commodity being treated.</u>  The purpose of this standard is to provide generic requirements for the application of phytosanitary temperature treatments, specifically those adopted under ISPM 28 ( <i>Phytosanitary treatments for regulated pests</i> ).	<b>European Union</b> Proposal to move paragraph 48 before paragraph 45 for a more logical sequence. <i>Category : EDITORIAL</i>
47	45	<u>Phytosanitary treatments based on temperature are considered to be effective when the specific temperature-time combination required for the stated efficacy to be achieved is attained throughout the commodity being treated.</u>  The purpose of this standard is to provide generic requirements for the application of phytosanitary temperature treatments, specifically those adopted under ISPM 28 ( <i>Phytosanitary treatments for regulated pests</i> ).	<b>Eppo</b> Proposal to move paragraph 48 before paragraph 45 for a more logical sequence. <i>Category : EDITORIAL</i>
48	46	ISPM 28 was adopted to harmonize <del>efficient-effective</del> phytosanitary treatments over a wide range of circumstances and to enhance the mutual recognition of treatment efficacy by NPPOs, which may facilitate trade.	<b>Peru</b> Efficient is used to describe something that works in a quick or organized way, while effective is used to describe something that give you the result you want. Therefore, effective should be used in relation to treatments (with a stated efficacy). Consistency with paragraph 48. <i>Category : TECHNICAL</i>
49	46	ISPM 28 was adopted to harmonize <del>efficient-effective</del> phytosanitary treatments	<b>Brazil</b>

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		over a wide range of circumstances and to enhance the mutual recognition of treatment efficacy by NPPOs, which may facilitate trade.	Efficient is used to describe something that works in a quick or organized way, while effective is used to describe something that give you the result you want. Therefore, effective should be used in relation to treatments (with a stated efficacy). Consistency with paragraph 48. <i>Category : TECHNICAL</i>
50	46	ISPM 28 was adopted to harmonize <del>efficient-effective</del> phytosanitary treatments over a wide range of circumstances and to enhance the mutual recognition of treatment efficacy by NPPOs, which may facilitate trade.	<b>Argentina</b> Efficient is used to describe something that works in a quick or organized way, while effective is used to describe something that give you the result you want. Therefore, effective should be used in relation to treatments (with a stated efficacy). Consistency with paragraph 48. <i>Category : TECHNICAL</i>
51	46	ISPM 28 was adopted to harmonize efficient phytosanitary treatments over a wide range of circumstances and to enhance the mutual recognition of treatment efficacy by NPPOs, which may facilitate trade. <a href="#">ISPM 28 provides requirements for submission and evaluation of efficacy data and other relevant information on phytosanitary treatments, and Annexes with specific temperature treatments that have been evaluated and adopted by the Commission on Phytosanitary Measures.</a>	<b>European Union</b> Proposal to merge paragraphs 46 and 47 because they both deal with ISPM 28. <i>Category : EDITORIAL</i>
52	46	ISPM 28 was adopted to harmonize efficient phytosanitary treatments over a wide range of circumstances and to enhance the mutual recognition of treatment efficacy by NPPOs, which may facilitate trade. <a href="#">ISPM 28 provides requirements for submission and evaluation of efficacy data and other relevant information on phytosanitary treatments, and Annexes with specific temperature treatments that have been evaluated and adopted by the Commission on Phytosanitary Measures.</a>	<b>EPPO</b> Proposal to merge paragraphs 46 and 47 because they both deal with ISPM 28. <i>Category : EDITORIAL</i>
53	46	ISPM 28 was adopted to harmonize <del>efficient-effective</del> phytosanitary treatments over a wide range of circumstances and to enhance the mutual recognition of treatment efficacy by NPPOs, which may facilitate trade.	<b>Uruguay</b> Efficient is used to describe something that works in a quick or organized way, while effective is used to describe something that give you the result you want. Therefore, effective should be used in relation to treatments (with a stated efficacy). Consistency with paragraph 48. <i>Category : TECHNICAL</i>
54	46	ISPM 28 was adopted to harmonize <del>efficient-effective</del> phytosanitary treatments over a wide range of circumstances and to enhance the mutual recognition of treatment efficacy by NPPOs, which may facilitate trade.	<b>COSAVE</b> Efficient is used to describe something that works in a quick or organized way, while effective is used to describe something that give you the result you want. Therefore, effective should be used in relation to treatment (with a stated efficacy).  <i>Category : TECHNICAL</i>
55	47	<del>ISPM 28 provides requirements for submission and evaluation of efficacy data and other relevant information on phytosanitary treatments, and Annexes with specific temperature treatments that have been evaluated and adopted by the</del>	<b>European Union</b> Proposal to merge paragraphs 46 and 47 because they both deal with ISPM 28. <i>Category : EDITORIAL</i>



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		<del>Commission on Phytosanitary Measures.</del>	
56	47	<del>ISPM 28 provides requirements for submission and evaluation of efficacy data and other relevant information on phytosanitary treatments, and Annexes with specific temperature treatments that have been evaluated and adopted by the Commission on Phytosanitary Measures.</del>	<b>EPPO</b> Proposal to merge paragraphs 46 and 47 because they both deal with ISPM 28. <i>Category : EDITORIAL</i>
57	48	Phytosanitary treatments based on temperature are considered to be effective when the specific temperature–time <del>combination</del> <u>combination and humidity (if necessary)</u> , required for the stated efficacy to be achieved is attained throughout the commodity being treated.	<b>APPPC</b> Humidity could be an additional necessary factor for the efficacy of certain temperature treatment. <b>Nepal</b> Agreed that humidity could be an additional necessary factor for the efficacy of certain temperature treatment. <b>China</b> China support to this APPPC comment. <b>Korea, Republic of</b> Republic of Korea supports this APPPC comment. <b>Viet Nam</b> Vietnam support this APPPC comment. <i>Category : SUBSTANTIVE</i>
58	48	<del>Phytosanitary treatments based on temperature are considered to be effective when the specific temperature–time combination required for the stated efficacy to be achieved is attained throughout the commodity being treated.</del>	<b>European Union</b> Proposal to move paragraph 48 before paragraph 45 for a more logical sequence. <i>Category : EDITORIAL</i>
59	48	<del>Phytosanitary treatments based on temperature are considered to be effective when the specific temperature–time combination required for the stated efficacy to be achieved is attained throughout the commodity being treated.</del>	<b>EPPO</b> Proposal to move paragraph 48 before paragraph 45 for a more logical sequence. <i>Category : EDITORIAL</i>
60	48	Phytosanitary treatments based on temperature are considered to be effective when the specific temperature–time <del>combination</del> <u>combination, and humidity (if necessary)</u> , required for the stated efficacy to be achieved is attained throughout the commodity being treated.	<b>Thailand</b> Humidity could be an additional necessary factor for the efficacy of certain temperature treatment. <i>Category : SUBSTANTIVE</i>
61	50	The use of temperature treatments as phytosanitary measures has a <del>direct</del> <u>beneficial</u> impact on biodiversity and the environment by preventing the introduction <u>and spread</u> of regulated pests with the trade of plants and plant products.	<b>European Union</b> More precise. Consistency with the draft standard on fumigation. <i>Category : EDITORIAL</i>
62	50	The use of temperature treatments as phytosanitary measures has a <del>direct</del> <u>beneficial</u> impact on biodiversity and the environment by preventing the introduction <u>and spread</u> of regulated pests with the trade of plants and plant products.	<b>EPPO</b> More precise. Consistency with the draft standard on fumigation. <i>Category : EDITORIAL</i>

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63	50	The use of temperature treatments as phytosanitary measures has a <del>direct impact</del> <b>direct impact</b> on biodiversity and the environment by preventing the introduction of regulated pests with the trade of plants and plant products.	<b>Nepal</b> what kind of direct impact. It would be better if specify. <i>Category : EDITORIAL</i>
64	53	The objective of using a temperature treatment as a phytosanitary measure is to achieve pest mortality (including devitalization of <del>seeds</del> <b>seeds as pests</b> ) at a specified efficacy. Appendix 1 provides guidance for temperature treatment efficacy studies.	<b>European Union</b> More precise, easier to understand. <i>Category : EDITORIAL</i>
65	53	The objective of using a temperature treatment as a phytosanitary measure is to achieve pest mortality (including devitalization of <del>seeds</del> <b>seeds as pests</b> ) at a specified efficacy. Appendix 1 provides guidance for temperature treatment efficacy studies.	<b>EPPO</b> More precise, easier to understand. <i>Category : EDITORIAL</i>
66	53	The objective of using a temperature treatment as a phytosanitary measure is to achieve pest mortality (including devitalization of seeds) at a specified efficacy. Appendix 1 provides guidance for temperature treatment efficacy studies.	<b>United States of America</b> The information in Appendix 1 basically repeats what is in ISPM 28. Suggest deleting the appendix and referring to ISPM 28. <i>Category : SUBSTANTIVE</i>
67	54	<b>2. Treatment Application</b>	<b>Ozone Secretariat</b> Additional proposed text: "Any associated packaging needs to be assessed as suitable for the treatment. The consignment needs to be loaded into the facility with adequate separation between items that permits an effective circulation of air".  A warning is needed e.g. plastic film may melt onto the commodity. Some guidance to improve evenness of temperature through the commodity.  <i>Category : SUBSTANTIVE</i>
68	54	<b>2. Treatment Application</b>	<b>Philippines</b> Specify the specific temperature treatment applicable for each point along the supply chain (eg. VHT cannot be conducted after packaging). <i>Category : SUBSTANTIVE</i>
69	57	<del>just immediately</del> before dispatch (e.g. at centralized locations at the port)	<b>European Union</b>  <i>Category : EDITORIAL</i>
70	57	<del>just before dispatch (e.g. at centralized locations at the port)</del>	<b>European Union</b> Suggest to move after paragraph 59 (indent "during storage") for a more logical sequence. <i>Category : EDITORIAL</i>
71	57	<del>just before dispatch (e.g. at centralized locations at the port)</del>	<b>EPPO</b> Suggest to move after paragraph 59 (indent "during storage") for a more logical sequence. <i>Category : EDITORIAL</i>
72	57	just before dispatch (e.g. at centralized locations at the port)	<b>Nepal</b> It may look sequential if after packaging be placed before Just before

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			dispatch. <i>Category : EDITORIAL</i>
73	59	during <del>storage</del> <u>- immediately before despatch (e.g. at centralized locations at the port)</u>	<b>European Union</b> Moved from paragraph 57 for a more logical sequence, and modified as per our previous comment. <i>Category : EDITORIAL</i>
74	59	during storage <u>- just before dispatch (e.g. at centralized locations at the port)</u>	<b>EPPO</b> Moved from paragraph 57 for a more logical sequence.  'immediately' instead of 'just' seems more appropriate <i>Category : EDITORIAL</i>
75	60	during <del>transport</del> <u>-before unloading</u>	<b>Kenya</b>  <i>Category : TECHNICAL</i>
76	64	Packaging size and controlled atmospheres or modified atmospheres created by packaging may alter treatment efficacy.  <u>Where the treatment specifies a minimum humidity level, impervious packaging must be removed, opened or adequately punctured to allow the humidity to reach the requirement of the treatment.</u>	<b>European Union</b> Proposal to move paragraph 66 after paragraph 64 because they both deal with packaging. <i>Category : EDITORIAL</i>
77	64	Packaging size and controlled atmospheres or modified atmospheres created by packaging may alter treatment efficacy.  <u>Where the treatment specifies a minimum humidity level, impervious packaging must be removed, opened or adequately punctured to allow the humidity to reach the requirement of the treatment.</u>	<b>EPPO</b> Proposal to move paragraph 66 after paragraph 64 because they both deal with packaging. <i>Category : EDITORIAL</i>
78	64	Packaging size and controlled atmospheres or modified atmospheres created by packaging may alter treatment efficacy. <u>Packaging should allow the treatment to be distributed throughout the load.</u>	<b>United States of America</b> Clarify packaging requirement <i>Category : TECHNICAL</i>
79	65	The treatment <del>protocol</del> <u>-protocol, as set up or approved by the NPPO,</u> should describe the process of pre- and post-conditioning to reach the required temperature and humidity, where these processes are critical to the treatment achieving the required efficacy while preserving commodity quality. The protocol should also include contingency procedures and guidance on corrective actions for treatment failures.	<b>European Union</b> The concept of a 'protocol' and who is responsible, needs to be introduced somewhere in the text, at least with this small addition. <i>Category : SUBSTANTIVE</i>
80	65	The treatment <del>protocol</del> <u>-protocol, as set up or approved by the NPPO,</u> should describe the process of pre- and post-conditioning to reach the required temperature and humidity, where these processes are critical to the treatment achieving the required efficacy while preserving commodity quality. The	<b>EPPO</b> The concept of a 'protocol' and who is responsible, needs to be introduced somewhere in the text, at least with this small addition. <i>Category : SUBSTANTIVE</i>

#	Para	Text	Comment
		protocol should also include contingency procedures and guidance on corrective actions for treatment failures.	
81	66	<del>Where the treatment specifies a minimum humidity level, impervious packaging must be removed, opened or adequately punctured to allow the humidity to reach the requirement of the treatment.</del>	<b>European Union</b> Proposal to move paragraph 66 after paragraph 64 because they both deal with packaging. <i>Category : EDITORIAL</i>
82	66	<del>Where the treatment specifies a minimum humidity level, impervious packaging must be removed, opened or adequately punctured to allow the humidity to reach the requirement of the treatment.</del>	<b>EPPO</b> Proposal to move paragraph 66 after paragraph 64 because they both deal with packaging. <i>Category : EDITORIAL</i>
83	67	<del>Depending on the type of the treatment, temperature treatments can readily penetrate to the interior of the commodity being treated, and can be applied to plant products of any size or shape.</del>	<b>European Union</b> Proposed to delete whole paragraph – it doesn't really add much to the draft. <i>Category : SUBSTANTIVE</i>
84	67	<del>Depending on the type of the treatment, temperature treatments can readily penetrate to the interior of the commodity being treated, and can be applied to plant products of any size or shape.</del>	<b>EPPO</b> Proposed to delete whole paragraph – it doesn't really add much to the draft <i>Category : SUBSTANTIVE</i>
85	67	Depending on the type of the treatment, temperature treatments can readily penetrate to the interior of the commodity being treated, and can be applied to plant products of any size or shape. <u>Any associated packaging needs to be assessed as suitable for the treatment.</u> <u>The consignment needs to be loaded into the facility with adequate separation between items that permits an effective circulation of air.</u>	<b>New Zealand</b> A warning is needed e.g. plastic film may melt onto the commodity.  Some guidance to improve evenness of temperature through the commodity.  <i>Category : TECHNICAL</i>
86	70	Cold treatment uses refrigerated air to lower the temperature of the commodity to or below a specific temperature for a specific <del>period of time</del> period. Cold treatment is used primarily for perishable commodities that are hosts of pests that are internal feeders.	<b>Peru</b> "of time" deleted to avoid redundancy <i>Category : EDITORIAL</i>
87	70	Cold treatment uses refrigerated air to lower the temperature of the commodity to or below a specific temperature for a specific <del>period of time</del> period. Cold treatment is used primarily for perishable commodities that are hosts of pests that are internal feeders.	<b>Brazil</b> "of time" deleted to avoid redundancy <i>Category : EDITORIAL</i>
88	70	Cold treatment uses refrigerated air to lower the temperature of the commodity to or below a specific temperature for a specific <del>period of time</del> period. Cold treatment is used primarily for perishable commodities that are hosts of pests that are internal feeders.	<b>Argentina</b> "of time" deleted to avoid redundancy <i>Category : EDITORIAL</i>
89	70	Cold treatment uses refrigerated air to lower the temperature of the commodity	<b>Uruguay</b> "of time" deleted to avoid redundancy

#	Para	Text	Comment
		to or below a specific temperature for a specific <del>period of time</del> period. Cold treatment is used primarily for perishable commodities that are hosts of pests that are internal feeders.	<i>Category : EDITORIAL</i>
90	70	Cold treatment uses refrigerated air to lower the temperature of the commodity to or below a specific temperature for a specific <del>period of time</del> period. Cold treatment is used primarily for perishable commodities that are hosts of pests that are internal feeders.	<b>COSAVE</b> "of time" was deleted because is redundant <i>Category : EDITORIAL</i>
91	71	Cold treatment may be applied during transport to the importing country (e.g. in sea containers). The treatment may start before dispatch and be completed prior to or at the point of entry. The commodity may be precooled to the temperature at which the commodity will be treated prior to beginning treatment. Where applicable, mixed consignments (e.g. fresh lemon and orange fruits loaded in the same facility) may also be treated pre-dispatch or during transport. In all cases, the commodities should be protected from contamination and infestation throughout <del>treatment</del> <del>treatment, transport</del> and <del>transport</del> storage.	<b>Canada</b> Prevention of infestation during storage is important. <i>Category : TECHNICAL</i>
92	71	Cold treatment may be applied during transport to the importing country (e.g. in sea containers). The treatment may start before dispatch and be completed prior to or at the point of entry. The commodity may be precooled to the temperature at which the commodity will be treated prior to beginning treatment. Where applicable, mixed consignments (e.g. fresh lemon and orange fruits loaded in the same facility) may also be treated pre-dispatch or during transport. In all cases, the commodities should be protected from contamination and infestation throughout treatment and transport. <u>Cold treatment may be used in combination with chemical treatment (e.g. fumigation)</u>	<b>Peru</b> This combination of treatments are described in the draft of fumigation treatments under consultation. So we suggest to mention this combination consistently with para. 75 <i>Category : TECHNICAL</i>
93	71	Cold treatment may be applied during transport to the importing country (e.g. <u>refrigerated cargo holds in vessels and refrigerated</u> sea containers). The treatment may start before dispatch and be completed prior to or at the point of entry. The commodity <del>may</del> <u>should</u> be precooled to the temperature at which the commodity will be treated prior to beginning treatment. Where applicable, mixed consignments (e.g. fresh lemon and orange fruits loaded in the same facility) may also be treated pre-dispatch or during transport. In all cases, the commodities should be protected from contamination and infestation throughout treatment and transport.	<b>United States of America</b> First sentence: Should specify refrigerated sea containers (reefers) and vessels. Third sentence: Should be more appropriate here. Fourth sentence: a few issues - Usually commodities are not mixed in a single compartment or container because of the difference in the air flow in the enclosure. Different commodities require different schedules of temperature. Box size affects airflow - cartons need to be the same size. Mixed consignments such as lemons and oranges are not permitted in the same treatment. <i>Category : TECHNICAL</i>
94	71	Cold treatment may be applied during transport to the importing country (e.g. in sea containers). The treatment may start before dispatch and be completed	<b>Brazil</b> This combination of treatments are described in the draft of fumigation treatments under consultation. So we suggest to mention this combination

#	Para	Text	Comment
		prior to or at the point of entry. The commodity may be pre-cooled to the temperature at which the commodity will be treated prior to beginning treatment. Where applicable, mixed consignments (e.g. fresh lemon and orange fruits loaded in the same facility) may also be treated pre-dispatch or during transport. In all cases, the commodities should be protected from contamination and infestation throughout treatment and transport. <u>Cold treatment may be used in combination with chemical treatment (e.g. fumigation)</u>	consistently with para. 75 <i>Category : TECHNICAL</i>
95	71	Cold treatment may be applied during transport to the importing country (e.g. in sea containers). The treatment may start before dispatch and be completed prior to or at the point of entry. The commodity may be pre-cooled to the temperature at which the commodity will be treated prior to beginning treatment. Where applicable, mixed consignments (e.g. fresh lemon and orange fruits loaded in the same facility) may also be treated pre-dispatch or during transport. In all cases, the commodities should be protected from contamination and infestation throughout treatment and transport. <u>Cold treatment may be used in combination with chemical treatment (e.g. fumigation)</u>	<b>Argentina</b> This combination of treatments are described in the draft of fumigation treatments under consultation. So we suggest to mention this combination consistently with para. 75 <i>Category : TECHNICAL</i>
96	71	Cold treatment may be applied during transport to the importing country (e.g. in sea containers). The treatment may start before dispatch and be completed prior to or at the point of entry. <u>The Prior to beginning treatment, the</u> commodity may be pre-cooled to the temperature at which the commodity will be treated <u>prior to beginning treatment</u> . Where applicable, mixed consignments (e.g. fresh lemon and orange fruits loaded in the same facility) may also be treated pre-dispatch or during transport. In all cases, the commodities should be protected from contamination and infestation throughout treatment and transport.	<b>European Union</b> Easier to read. <i>Category : EDITORIAL</i>
97	71	Cold treatment may be applied during transport to the importing country (e.g. in sea containers). The treatment may start before dispatch and be completed prior to or at the point of entry. The commodity may be pre-cooled to the temperature at which the commodity will be treated prior to beginning treatment. Where applicable, mixed consignments (e.g. fresh lemon and orange fruits loaded in the same facility) may also be treated pre-dispatch or during transport. In all cases, the commodities should be protected from <u>contamination and</u> infestation throughout treatment and transport.	<b>European Union</b> The focus should be put on infestation rather than on contamination. <i>Category : EDITORIAL</i>
98	71	Cold treatment may be applied during transport to the importing country (e.g. in sea containers). The treatment may start before dispatch and be completed	<b>EPPO</b> Easier to read.

#	Para	Text	Comment
		prior to or at the point of entry. <del>The Prior to beginning treatment, the commodity may be precooled to the temperature at which the commodity will be treated prior to beginning treatment</del> treated. Where applicable, mixed consignments (e.g. fresh lemon and orange fruits loaded in the same facility) may also be treated pre-dispatch or during transport. In all cases, the commodities should be protected from <del>contamination and</del> infestation throughout treatment and transport.	The focus should be put on infestation rather than on contamination. <i>Category : EDITORIAL</i>
99	71	Cold treatment may be applied during transport to the importing country (e.g. in sea containers). The treatment may start before dispatch and be completed prior to or at the point of entry. The commodity may be precooled to the temperature at which the commodity will be treated prior to beginning treatment. Where applicable, mixed consignments (e.g. fresh lemon and orange fruits loaded in the same facility) may also be treated pre-dispatch or during transport. In all cases, the commodities should be protected from contamination and infestation throughout treatment and transport. <u>Cold treatment may be used in combination with chemical treatment (e.g. fumigation)</u>	<b>Uruguay</b> This combination of treatments are described in the draft on fumigation treatments under consultation. Therefore, we suggest to mention this combination consistently with paragraph 75. <i>Category : TECHNICAL</i>
100	71	Cold treatment may be applied during transport to the importing country (e.g. in sea containers). The treatment may start before dispatch and be completed prior to or at the point of entry. The commodity may be precooled to the temperature at which the commodity will be treated prior to beginning treatment. Where applicable, mixed consignments (e.g. fresh lemon and orange fruits loaded in the same facility) may also be treated pre-dispatch or during transport. In all cases, the commodities should be protected from contamination and infestation throughout treatment and transport. <u>Cold treatment may be used in combination with chemical treatment (e.g. fumigation)</u>	<b>COSAVE</b> This combination of treatments are described in the draft of fumigation treatments under consultation. So we suggest to mention this combination consistently with para. 75 <i>Category : TECHNICAL</i>
101	73	Heat treatment raises the temperature of the commodity to the minimum required temperature or higher throughout a specific <del>period of time</del> period.	<b>Peru</b> <i>Category : EDITORIAL</i>
102	73	Heat treatment raises the temperature of the commodity to the minimum required temperature or higher throughout a specific <del>period of time</del> period.	<b>Brazil</b> "of time" deleted to avoid redundancy <i>Category : EDITORIAL</i>
103	73	Heat treatment raises the temperature of the commodity to the minimum required temperature or higher throughout a specific <del>period of time</del> period.	<b>Argentina</b> "of time" deleted to avoid redundancy <i>Category : EDITORIAL</i>
104	73	Heat treatment raises the temperature of the commodity to the minimum required temperature or higher throughout a specific <del>period of time</del> period.	<b>Uruguay</b> "of time" deleted to avoid redundancy <i>Category : EDITORIAL</i>

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105	73	Heat treatment raises the temperature of the commodity to the minimum required temperature or higher throughout a specific <del>period of time</del> <u>period</u> .	<b>COSAVE</b> "of time" was deleted because is redundant <i>Category : EDITORIAL</i>
106	75	Heat treatment may be used in combination with chemical treatment (e.g. <del>fumigation</del> <u>fumigation, pesticide immersion treatment</u> ).	<b>APPPC</b> Include another example. <b>China</b> China support to this APPPC comment. Pesticide immersion treatment is a more convenient combination with heat treatment. <b>Viet Nam</b> Vietnam support this APPPC comment. <i>Category : SUBSTANTIVE</i>
107	75	Heat treatment may be used in combination with chemical treatment (e.g. fumigation).	<b>United States of America</b> Clarify the meaning of "treatments together in combination"? Cold treatment and fumigation are known to be used together, as part of the requirement, but in sequence, not at the same time. What does it mean when discussing heat treatment specifying certain temperatures, because fumigation already requires certain temperatures for efficacy? <i>Category : TECHNICAL</i>
108	75	Heat treatment may be used in combination with chemical treatment (e.g. <del>fumigation</del> <u>pesticide immersion treatment</u> ).	<b>China</b> Pesticide immersion treatment is a more convenient combination with heat treatment. <i>Category : SUBSTANTIVE</i>
109	76	<b>3.2.1 Hot water immersion treatment</b>	<b>China</b> Relevant requirements for water quality in hot water immersion treatment should be required. The HWIT facility should have a regular supply of clean and filtered water. The immersion tank water should be sampled and tested regularly and chlorinated or replaced as necessary to avoid microbial contamination. <i>Category : SUBSTANTIVE</i>
110	77	Hot water immersion treatment (also known as hydrothermal treatment) uses heated water at a required 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 plants for planting (e.g. ornamental bulbs) <u>and some seeds for sowing purpose (eg. Paddy, Ornamental palm seeds, etc.)</u> to control pests, and generally may be used for pests present on the surface of plants.	<b>APPPC</b>  <b>Nepal</b> Support APPPC comments <b>China</b> China support to this APPPC comment. <b>Thailand</b> Thailand support this APPPC comment.  <b>Korea, Republic of</b> Republic of Korea supports this APPPC comment. <b>Malaysia</b> Malaysia agreed with APPPC <b>Viet Nam</b> Vietnam support this APPPC comment. <i>Category : SUBSTANTIVE</i>
111	77	Hot water immersion treatment (also known as hydrothermal treatment) uses heated water at a required temperature to heat the surface of the commodity for	<b>Canada</b> Adding technical details. <i>Category : TECHNICAL</i>



#	Para	Text	Comment
		a specific period of time or <a href="#">via heat conduction</a> to raise the <a href="#">temperature of the</a> 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 plants for planting (e.g. ornamental bulbs) to control pests, and generally may be used for pests present on the surface of plants.	
112	77	Hot water immersion treatment (also known as hydrothermal treatment) uses heated water at a required 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 <del>period of time</del> period. This treatment is used primarily for certain fruits that are hosts of fruit flies, but may also be used for plants for planting (e.g. ornamental bulbs) to control pests, and generally may be used for pests present on the surface of plants.	<b>Peru</b> <i>Category : EDITORIAL</i>
113	77	Hot water immersion treatment (also known as hydrothermal treatment) uses heated water at a required 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 plants for planting (e.g. ornamental bulbs) to control pests, and generally may be used for pests present on the surface of plants.	<b>United States of America</b> First sentence: Confusing. Is the requirement to heat only the surface of the commodity, or the entire commodity? This should be clarified why the surface is mentioned but not the entire commodity. The probe inserted in a fruit should reach the specified temperature and be maintained for the entire specified time. <i>Category : TECHNICAL</i>
114	77	Hot water immersion treatment (also known as hydrothermal treatment) uses heated water at a required temperature to heat the surface of the commodity for a specific period <del>of time</del> 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 plants for planting (e.g. ornamental bulbs) to control pests, and generally may be used for pests present on the surface of plants.	<b>Brazil</b> "of time" deleted to avoid redundancy <i>Category : EDITORIAL</i>
115	77	Hot water immersion treatment (also known as hydrothermal treatment) uses heated water at a required temperature to heat the surface of the commodity for a specific period <del>of time</del> 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 plants for planting (e.g. ornamental bulbs) to control pests, and generally may be used for pests present on the surface of plants.	<b>Argentina</b> "of time" deleted to avoid redundancy <i>Category : EDITORIAL</i>
116	77	Hot water immersion treatment (also known as hydrothermal treatment) uses heated water at a required 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	<b>European Union</b> Vegetables can be attacked by fruit flies. "Fruits and vegetables" is a glossary term. <i>Category : TECHNICAL</i>

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		certain fruits <u>and vegetables</u> that are hosts of fruit flies, but may also be used for plants for planting (e.g. ornamental bulbs) to control pests, and generally may be used for pests present on the surface of plants.	
117	77	Hot water immersion treatment (also known as hydrothermal treatment) uses heated water at a required 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 <u>it</u> may also be used for plants for planting (e.g. ornamental <del>bulbs</del> <u>bulbs</u> ) <del>to control pests, and bulbs</del> . <u>It is</u> generally <del>may be</del> used for pests present on the surface of plants.	<b>European Union</b> Better wording? "To control pests" is useless. <i>Category : EDITORIAL</i>
118	77	Hot water immersion treatment (also known as hydrothermal treatment) uses heated water at a required 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 plants for planting (e.g. ornamental <del>bulbs</del> <u>bulbs, grapevine material</u> ) to control pests, and generally may be used for pests present on the surface of plants.	<b>European Union</b> To give another interesting example. <i>Category : TECHNICAL</i>
119	77	Hot water immersion treatment (also known as hydrothermal treatment) uses heated water at a required 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 <u>and vegetables</u> that are hosts of fruit flies, but <u>it</u> may also be used for plants for planting (e.g. ornamental <del>bulbs</del> <u>bulbs</u> , <del>and grapevine material</del> ). <u>It is</u> generally <del>may be</del> used for pests present on the surface of plants.	<b>EPPO</b> Vegetables can be attacked by fruit flies. "Fruits and vegetables" is a glossary term.  To give another interesting example.  Better wording. "To control pests" is useless <i>Category : EDITORIAL</i>
120	77	Hot water immersion treatment (also known as hydrothermal treatment) uses heated water at a required 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 plants for planting (e.g. ornamental bulbs) to control pests, and generally may be used for pests present on the surface of plants.	<b>Myanmar</b> Myanmar support to APPPC comment <i>Category : SUBSTANTIVE</i>
121	77	Hot water immersion treatment (also known as hydrothermal treatment) uses heated water at a required temperature to heat the surface of the commodity for a specific period <del>of time</del> 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 plants for	<b>Uruguay</b> "of time" deleted to avoid redundancy <i>Category : EDITORIAL</i>

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		planting (e.g. ornamental bulbs) to control pests, and generally may be used for pests present on the surface of plants.	
122	77	Hot water immersion treatment (also known as hydrothermal treatment) uses heated water at a required temperature to heat the surface of the commodity <del>for a specific period of time or to raise</del> 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 plants for planting (e.g. ornamental bulbs) to control pests, and generally may be used for pests present on the surface of plants.	<b>Philippines</b> <i>Category : EDITORIAL</i>
123	77	Hot water immersion treatment (also known as hydrothermal treatment) uses heated water at a required temperature to heat the surface of the commodity for a specific period <del>of time</del> or to raise the entire commodity to the required temperature for a specific <del>period of time</del> <u>period</u> . This treatment is used primarily for certain fruits that are hosts of fruit flies, but may also be used for plants for planting (e.g. ornamental bulbs) to control pests, and generally may be used for pests present on the surface of plants.	<b>COSAVE</b> "of time" was deleted because is redundant <i>Category : EDITORIAL</i>
124	78	<b>3.2.2 Vapour heat <del>treatment</del><u>treatment (direct steam treatment)</u></b>	<b>Canada</b> Adding clarity <i>Category : TECHNICAL</i>
125	79	Vapour heat treatment (VHT), including high temperature forced air (HTFA) <sup>2</sup> , uses water vapour-saturated air to heat the commodity throughout a specific <del>period of time</del> <u>period</u> . The high heat energy of hot moist air means that vapour heat is capable of raising the commodity temperature faster than dry air.	<b>Peru</b> <i>Category : EDITORIAL</i>
126	79	Vapour heat treatment (VHT), including high temperature forced air (HTFA) <sup>2</sup> , uses water vapour-saturated air to heat the commodity throughout a specific period of time. The high heat energy of hot moist air means that vapour heat is capable of raising the commodity temperature faster than dry air.	<b>United States of America</b> Both treatments use vapour but not saturated air <i>Category : TECHNICAL</i>
127	79	Vapour heat treatment (VHT), including high temperature forced air (HTFA) <sup>2</sup> , uses water vapour-saturated air to heat the commodity throughout a specific <del>period of time</del> <u>period</u> . The high heat energy of hot moist air means that vapour heat is capable of raising the commodity temperature faster than dry air.	<b>Brazil</b> "of time" deleted to avoid redundancy <i>Category : EDITORIAL</i>
128	79	Vapour heat treatment (VHT), including high temperature forced air (HTFA) <sup>2</sup> , uses water vapour-saturated air to heat the commodity throughout a specific <del>period of time</del> <u>period</u> . The high heat energy of hot moist air means that vapour heat is capable of raising the commodity temperature faster than dry air.	<b>Argentina</b> "of time" deleted to avoid redundancy <i>Category : EDITORIAL</i>
129	79	Vapour heat treatment (VHT), including high temperature forced air (HTFA) <sup>2</sup> , uses water vapour-saturated air to heat the commodity throughout a specific period of time. The high heat energy of hot moist air <del>means that enables</del> vapour	<b>European Union</b> Better wording. <i>Category : EDITORIAL</i>

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		heat <del>is capable of raising to raise</del> the commodity temperature faster than dry air.	
130	79	Vapour heat treatment (VHT), including high temperature forced air (HTFA) <sup>2</sup> , uses water vapour-saturated air to heat the commodity throughout a specific period of time. The high heat energy of hot moist air <del>means that enables</del> vapour heat <del>is capable of raising to raise</del> the commodity temperature faster than dry air.	<b>EPPO</b> Better wording <i>Category : EDITORIAL</i>
131	79	Vapour heat treatment (VHT), including high temperature forced air (HTFA) <sup>2</sup> , uses water vapour-saturated air to heat the commodity throughout a specific <del>period of time</del> period. The high heat energy of hot moist air means that vapour heat is capable of raising the commodity temperature faster than dry air.	<b>Uruguay</b> "of time" deleted to avoid redundancy <i>Category : EDITORIAL</i>
132	79	Vapour heat treatment (VHT), including high temperature forced air (HTFA) <sup>2</sup> , uses water vapour-saturated air to heat the commodity throughout a specific <del>period of time</del> period. The high heat energy of hot moist air means that vapour heat is capable of raising the commodity temperature faster than dry air.	<b>COSAVE</b> "of time" was deleted because is redundant <i>Category : EDITORIAL</i>
133	80	The main distinction between VHT and HTFA relates to the moisture content of the heated air and the consequential heating. VHT typically uses air near saturation, which results in condensation of water on the <del>fruit commodity</del> surface until the <del>fruit commodity</del> surface temperature increases to near the air temperature, while during HTFA the dew point is typically always kept below the surface temperature of the commodity being heated resulting in no condensation.	<b>European Union</b> Commodity is the term used in the rest of the standard. Fruit is too restrictive. <i>Category : EDITORIAL</i>
134	80	The main distinction between VHT and HTFA relates to the moisture content of the heated air and the consequential heating. VHT typically uses air near saturation, which results in condensation of water on the fruit surface until the fruit surface temperature increases to near the air temperature, while during HTFA the dew point is <del>typically</del> always kept below the surface temperature of the commodity being heated resulting in no condensation.	<b>European Union</b> We believe it is useless. However, typically and always mean two different things (typically means something doesn't always happen). We assume that 'always' is correct but it needs to be checked. <i>Category : EDITORIAL</i>
135	80	The main distinction between VHT and HTFA relates to the moisture content of the heated air and the consequential heating. VHT typically uses air near saturation, which results in condensation of water on the <del>fruit commodity</del> surface until the <del>fruit commodity</del> surface temperature increases to near the air temperature, while during HTFA the dew point is <del>typically</del> always kept below the surface temperature of the commodity being heated resulting in no condensation.	<b>EPPO</b> We believe it is useless. However, typically and always mean two different things (typically means something doesn't always happen). We assume that 'always' is correct but it needs to be checked.  Commodity is the term used in the rest of the standard. Fruit is too restrictive. <i>Category : EDITORIAL</i>
136	81	This treatment is suitable for those plant products that are resistant to high moisture but are vulnerable to drying out, such as fresh fruits, fresh vegetables and flower bulbs. <u>It is also used to sterilize wood products.</u>	<b>Canada</b> <i>Category : TECHNICAL</i>
137	81	This treatment is suitable for those plant products that are <del>resistant-tolerant</del> to	<b>Peru</b>

#	Para	Text	Comment
		high moisture but are vulnerable to drying out, such as fresh fruits, fresh vegetables and flower bulbs.	"tolerant" is a more appropriate term. <i>Category : EDITORIAL</i>
138	81	This treatment is suitable for those plant products that are <del>resistant</del> <u>tolerant</u> to high moisture but are vulnerable to drying out, such as fresh fruits, fresh vegetables and flower bulbs.	<b>Brazil</b> "tolerant" is a more appropriate term. <i>Category : EDITORIAL</i>
139	81	This treatment is suitable for those plant products that are resistant to high moisture but are vulnerable to drying out, such as <del>fresh</del> -fruits, <del>fresh</del> -vegetables and flower bulbs.	<b>European Union</b> According to the glossary (ISPM 5), fruits and vegetables are fresh parts of plants. <i>Category : TECHNICAL</i>
140	81	This treatment is suitable for those plant products that are resistant to high moisture but are vulnerable to drying out, such as <del>fresh</del> -fruits, <del>fresh</del> -vegetables and flower bulbs.	<b>EPP0</b> According to the glossary (ISPM 5), fruits and vegetables are fresh parts of plants. <i>Category : TECHNICAL</i>
141	81	This treatment is suitable for those plant products that are <del>resistant</del> <u>tolerant</u> to high moisture but are vulnerable to drying out, such as fresh fruits, fresh vegetables and flower bulbs.	<b>COSAVE</b> "tolerant" is a more appropriate term. <i>Category : EDITORIAL</i>
142	82	Variable humidity heat treatment is a type of VHT or HTFA. Hot and relatively dry fan-driven air is used initially, avoiding condensation, to heat the entire commodity from ambient temperature to the required temperature, which is then maintained in humid air, just below dew point, for a specific <del>period of</del> <u>timeperiod</u> .	<b>Peru</b> <i>Category : EDITORIAL</i>
143	82	Variable humidity heat treatment is a type of VHT or HTFA. Hot and relatively dry fan-driven air is used initially, avoiding condensation, to heat the entire commodity from ambient temperature to the required temperature, which is then maintained in humid air, just below dew point, for a specific <del>period of</del> <u>timeperiod</u> .	<b>Brazil</b> "of time" deleted to avoid redundancy <i>Category : EDITORIAL</i>
144	82	Variable humidity heat treatment is a type of VHT or HTFA. Hot and relatively dry fan-driven air is used initially, avoiding condensation, to heat the entire commodity from ambient temperature to the required temperature, which is then maintained in humid air, just below dew point, for a specific <del>period of</del> <u>timeperiod</u> .	<b>Argentina</b> "of time" deleted to avoid redundancy <i>Category : EDITORIAL</i>
145	82	Variable humidity heat treatment is a type of VHT or HTFA. Hot and relatively dry fan-driven air is used initially, avoiding condensation, to heat the entire commodity from ambient temperature to the required temperature, which is then maintained in humid air, just below dew point, for a specific <del>period of</del> <u>timeperiod</u> .	<b>Uruguay</b> "of time" deleted to avoid redundancy <i>Category : EDITORIAL</i>
146	82	Variable humidity heat treatment is a type of VHT or HTFA. Hot and relatively dry fan-driven air is used initially, avoiding condensation, to heat the entire commodity from ambient temperature to the required temperature, which	<b>COSAVE</b> "of time" was deleted because is redundant <i>Category : EDITORIAL</i>

#	Para	Text	Comment
		is then maintained in humid air, just below dew point, for a specific <del>timeperiod</del> <u>period of time</u> .	
147	84	Dry heat treatment uses heated air at the required temperature to heat the surface of the commodity or raise the entire commodity to the required temperature for a specific <del>period of time</del> <u>period of time</u> . This treatment is used primarily for commodities with low moisture content such as seeds, grain and wood that should not be exposed to moisture.	<b>Peru</b> <i>Category : EDITORIAL</i>
148	84	Dry heat treatment uses heated air at the required temperature to heat the surface of the commodity or raise the entire commodity to the required temperature for a specific period of time. This treatment is used primarily for commodities with low moisture content such as seeds, grain and wood that should not be exposed to moisture.	<b>United States of America</b> See above United States comment on Paragraph 79. Suggest specifying information on % humidity with relation to the dry heat treatment. <i>Category : TECHNICAL</i>
149	84	Dry heat treatment uses heated air at the required temperature to heat the surface of the commodity or raise the entire commodity to the required temperature for a specific <del>period of time</del> <u>period of time</u> . This treatment is used primarily for commodities with low moisture content such as seeds, grain and wood that should not be exposed to moisture.	<b>Brazil</b> "of time" deleted to avoid redundancy <i>Category : EDITORIAL</i>
150	84	Dry heat treatment uses heated air at the required temperature to heat the surface of the commodity or raise the entire commodity to the required temperature for a specific <del>period of time</del> <u>period of time</u> . This treatment is used primarily for commodities with low moisture content such as seeds, grain and wood that should not be exposed to moisture.	<b>Argentina</b> "of time" deleted to avoid redundancy <i>Category : EDITORIAL</i>
151	84	Dry heat treatment uses heated air at the required temperature to heat the surface of the commodity or raise the entire commodity to the required temperature for a specific period of time. This treatment is used primarily for commodities with low moisture <del>content content</del> , such as seeds, grain and <del>wood</del> <u>wood</u> , that should not be exposed to moisture.	<b>European Union</b> Easier to read with two additional commas. <i>Category : EDITORIAL</i>
152	84	Dry heat treatment uses heated air at the required temperature to heat the surface of the commodity or raise the entire commodity to the required temperature for a specific period of time. This treatment is used primarily for commodities with low moisture <del>content content</del> , such as seeds, grain and <del>wood</del> <u>wood</u> , that should not be exposed to moisture.	<b>EPPO</b> Easier to read with two additional commas. <i>Category : EDITORIAL</i>
153	84	Dry heat treatment uses heated air at the required temperature to heat the surface of the commodity or raise the entire commodity to the required temperature for a specific <del>period of time</del> <u>period of time</u> . This treatment is used primarily for commodities with low moisture content such as seeds, grain and wood that should not be exposed to moisture.	<b>Uruguay</b> "of time" deleted to avoid redundancy. <i>Category : EDITORIAL</i>

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154	84	Dry heat treatment uses heated air at the required temperature to heat the surface of the commodity or <del>raise</del> the entire commodity <del>to the required temperature</del> for a specific period of time. This treatment is used primarily for commodities with low moisture content such as seeds, grain and wood that should not be exposed to moisture.	<b>Philippines</b> <i>Category : EDITORIAL</i>
155	84	Dry heat treatment uses heated air at the required temperature to heat the surface of the commodity or raise the entire commodity to the required temperature for a specific <del>period of time</del> <u>period</u> . This treatment is used primarily for commodities with low moisture content such as seeds, grain and wood that should not be exposed to moisture.	<b>COSAVE</b> "of time" was deleted because is redundant <i>Category : EDITORIAL</i>
156	87	Unlike traditional heating techniques, where <u>heat</u> moves <del>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</del> <u>via conduction from the surface to the inside of the commodity, where the surface is the hottest, dielectric heating generates heat throughout the material, including the internal part, and the heat propagates by convection and conduction outwards, reducing treatment time. Inside of the commodity tends to be hotter compared to the surface that tends to be the coolest due to heat radiation.</u>	<b>Canada</b> Providing technical clarity. <i>Category : TECHNICAL</i>
157	88	Dielectric heating has the potential advantage of selectively heating moist substances, such as pests, within relatively drier commodities, such as wood and grain, resulting in a shorter treatment time than if the entire commodity were heated with water or air until it reached a uniform temperature throughout.	<b>Canada</b> Technical detail. <i>Category : TECHNICAL</i>
158	88	Dielectric heating has the potential advantage of selectively heating moist substances, such as pests, within relatively drier commodities, such as wood and grain, resulting in a shorter treatment time than if the entire commodity were heated with water or air until it reached a uniform temperature throughout. <u>It also may have cold spots within commodity due to different densities or moisture contents, so heating schedule needs to ensure that these spots also reach the target temperature.</u>	<b>Canada</b> <i>Category : TECHNICAL</i>
159	88	Dielectric heating has the potential advantage of selectively heating moist substances, such as pests, within relatively drier commodities, such as wood and grain, resulting in a shorter treatment time than if the entire commodity were heated with water or air until it reached a uniform temperature throughout. <u>3.2.5 hot water spraying treatment</u>	<b>China</b> Hot water spray treatment is a commonly used hot water treatment method, which has less influence on fruit quality than hot water immersion treatment <i>Category : SUBSTANTIVE</i>

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160	89	<b>4. Temperature and Humidity Calibration, Monitoring and Recording</b>	<p><b>Ozone Secretariat</b> Additional proposed text: "As a minimum the following recordings are needed: the first achievement of the required temperature and time, temperature at the mid-point and at the end point".</p> <p>It important to record the temperature time achieved and this ISPM needs to set a minimum. The document swings from high level to detail e.g. sensors should be positioned 10cm under the water. The current IPSP 28 temperature treatments don't have any specification of frequency of recording.</p> <p>Agree with the heat ISPM format of monitoring an application is within the methods rather than separately as in the fumigation ISPM. <i>Category : TECHNICAL</i></p>
161	90	Monitoring and recording equipment for temperature and humidity, when required, should be appropriate for the selected temperature treatment. The equipment should be evaluated for accuracy and consistency <del>for of</del> <u>the measurement of the</u> temperature, humidity and duration of treatment.	<p><b>European Union</b> Clearer. <i>Category : EDITORIAL</i></p>
162	90	Monitoring and recording equipment for temperature and humidity, when required, should be appropriate for the selected temperature treatment. The equipment should be evaluated for accuracy and consistency for the temperature, humidity and duration of treatment.	<p><b>Cameroon</b> Il convient de relever que la principale faiblesse des ONPV de la Région Afrique souffrent d'une lacune majeure sur les équipements de verification et l'effectivité des traitements. L'adoption de cette norme viendra agraver le fossé en matière de capacités à mettre en oeuvre les normes adoptées. Il serait intéressant qu'après l'adoption de cette norme, un guide de mise en oeuvre soit préparé, donnant des indications sur quelques marques et modèles d'équipements pour faciliter l'acquisition et l'utilisation par nos ONPV <i>Category : TECHNICAL</i></p>
163	90	Monitoring and recording equipment for temperature and humidity, when required, should be appropriate for the selected temperature treatment. The equipment should be evaluated for accuracy and consistency <del>for of</del> <u>the measurement of the</u> temperature, humidity and duration of treatment.	<p><b>EPPO</b> Clearer. <i>Category : EDITORIAL</i></p>
164	91	To ensure that the required temperature, humidity and duration of treatment are achieved for a particular commodity, the temperature monitoring equipment should be calibrated in accordance with the manufacturer's instructions and international standards or appropriate national <del>standards</del> <u>standards</u> , at the temperature and humidity specified in the treatment schedule for heat treatments or in an ice slurry for cold treatments.	<p><b>European Union</b> Clearer with an additional comma. <i>Category : EDITORIAL</i></p>
165	91	To ensure that the required temperature, humidity and duration of treatment are achieved for a particular commodity, the temperature monitoring equipment should be calibrated in accordance with the manufacturer's instructions and international standards or appropriate national <del>standards</del> <u>standards</u> , at the temperature and humidity specified in the treatment schedule for heat treatments or in an ice slurry for cold treatments.	<p><b>EPPO</b> Clearer with an additional comma. <i>Category : EDITORIAL</i></p>



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166	93	The NPPO should ensure that the approved <a href="#">temperature</a> treatment for a commodity allows for accurate monitoring and recording of temperature and humidity, and thus verification that the treatment has been properly applied to a commodity. The monitoring and recording system, number and location of sensors, and frequency of monitoring (i.e. temperature and humidity readings) or recording should be appropriate for the specific treatment equipment, commodities, relevant technical standards and phytosanitary import requirements.	<b>Peru</b> For consistency. <i>Category : EDITORIAL</i>
167	93	The NPPO should ensure that the approved <a href="#">temperature</a> treatment for a commodity allows for accurate monitoring and recording of temperature and humidity, and thus verification that the treatment has been properly applied to a commodity. The monitoring and recording system, number and location of sensors, and frequency of monitoring (i.e. temperature and humidity readings) or recording should be appropriate for the specific treatment equipment, commodities, relevant technical standards and phytosanitary import requirements.	<b>Brazil</b> For consistency. <i>Category : EDITORIAL</i>
168	93	The NPPO should ensure that the approved <a href="#">temperature</a> treatment for a commodity allows for accurate monitoring and recording of temperature and humidity, and thus verification that the treatment has been properly applied to a commodity. The monitoring and recording system, number and location of sensors, and frequency of monitoring (i.e. temperature and humidity readings) or recording should be appropriate for the specific treatment equipment, commodities, relevant technical standards and phytosanitary import requirements.	<b>Argentina</b> For consistency. <i>Category : EDITORIAL</i>
169	93	The NPPO should ensure that <del>the approved treatment for a commodity allows for accurate</del> monitoring and recording of temperature and <del>humidity, and thus verification that humidity will be conducted in accordance with the treatment has been properly applied to a commodity</del> importing country's requirements. The monitoring and recording system, number and location of sensors, and frequency of monitoring (i.e. temperature and humidity readings) or recording should be appropriate for the specific treatment equipment, commodities, relevant technical standards and phytosanitary import requirements.	<b>United States of America</b> Suggest modifying the text to complement ISPM 12 <i>Category : TECHNICAL</i>
170	93	The NPPO should ensure that the approved treatment for a commodity allows for accurate monitoring and recording of temperature and humidity, and thus verification that the treatment has been properly applied to a commodity. The monitoring and recording system, number and location of sensors, and frequency of monitoring (i.e. temperature and humidity readings) or recording	<b>New Zealand</b> It important to record the temperature time achieved and this ISPM needs to set a minimum. The document swings from high level to detail e.g. sensors should be positioned 10cm under the water. The current IPSPM 28 temperature treatments don't have any specification of frequency of recording. <i>Category : TECHNICAL</i>

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		should be appropriate for the specific treatment equipment, commodities, relevant technical standards and phytosanitary import requirements. <u>As a minimum the following recordings are needed: the first achievement of the required temperature and time, temperature at the mid-point and at the end point.</u>	
171	93	The NPPO should ensure that the approved <u>temperature</u> treatment for a commodity allows for accurate monitoring and recording of temperature and humidity, and thus verification that the treatment has been properly applied to a commodity. The monitoring and recording system, number and location of sensors, and frequency of monitoring (i.e. temperature and humidity readings) or recording should be appropriate for the specific treatment equipment, commodities, relevant technical standards and phytosanitary import requirements.	<b>Uruguay</b> For consistency <i>Category : EDITORIAL</i>
172	93	The NPPO should ensure that the approved <u>temperature</u> treatment for a commodity allows for accurate monitoring and recording of temperature and humidity, and thus verification that the treatment has been properly applied to a commodity. The monitoring and recording system, number and location of sensors, and frequency of monitoring (i.e. temperature and humidity readings) or recording should be appropriate for the specific treatment equipment, commodities, relevant technical standards and phytosanitary import requirements.	<b>COSAVE</b> For consistency. <i>Category : EDITORIAL</i>
173	94	<b>4.1 Temperature mapping</b>	<b>Cameroon</b> Nous pensons que ce type d'études est au delà des capacités techniques de bien d'ONPV de la Région. Il serait préférable qu'avant l'adoption de cette norme, que des indications générales ou spécifiques pour des produits ou groupes de produits puissent être compilés et insérés en annexe afin de faciliter la mise en œuvre de cette norme. <i>Category : TECHNICAL</i>
174	94	<b>4.1 Temperature mapping</b>	<b>Panama</b> Se solicita al panel encargado de la presente norma, desarrollar una descripción de "mapeo de temperatura" (temperature mapping). <i>Category : SUBSTANTIVE</i>
175	94	<b>4.1 Temperature mapping</b>	<b>China</b> Specifies the minimum number of temperature probes required for temperature mapping. The heat treatment needs no less than 2 sensors to record the temperature distribution in the tank. <i>Category : SUBSTANTIVE</i>
176	94	<b>4.1 Temperature mapping</b>	<b>OIRSA</b> The panel in charge for this standard is requested to develop a description of Temperature mapping <i>Category : SUBSTANTIVE</i>
177	95	The NPPO of the exporting country should ensure that temperature mapping is	<b>Peru</b>

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		conducted by an authorized person or organization and follows approved procedures. The temperature mapping should cover the use of different packaging types, each packing configuration to be used, and the arrangement and density of the <del>commodity</del> <a href="#">commodity in the packing</a> , as well as the type of treatment facility used.	To clarify. <i>Category : TECHNICAL</i>
178	95	The NPPO of the exporting country should ensure that temperature mapping is conducted by an authorized person or organization and follows approved procedures. The temperature mapping should cover the use of different packaging types, each packing configuration to be used, and the arrangement and density of the <del>commodity</del> <a href="#">commodity in the packing</a> , as well as the type of treatment facility used.	<b>Brazil</b> To clarify <i>Category : TECHNICAL</i>
179	95	The NPPO of the exporting country should ensure that temperature mapping is conducted by an authorized person or organization and follows approved procedures. The temperature mapping should cover the use of different packaging types, each packing configuration to be used, and the arrangement and density of the <del>commodity</del> <a href="#">commodity in the packing</a> , as well as the type of treatment facility used.	<b>Argentina</b> To clarify <i>Category : TECHNICAL</i>
180	95	<del>The</del> <a href="#">If required by the importing country, the</a> NPPO of the exporting country should ensure that temperature mapping is conducted by an authorized person or organization and follows approved procedures. The temperature mapping should cover the use of different packaging types, each packing configuration to be used, and the arrangement and density of the commodity, as well as the type of treatment facility used.	<b>United States of America</b> To clarify <i>Category : SUBSTANTIVE</i>
181	95	The NPPO of the exporting country should ensure that temperature mapping is conducted by an authorized person or organization and follows approved procedures. The temperature mapping should cover the use of different packaging types, each packing configuration to be used, and the arrangement and density of the <del>commodity</del> <a href="#">commodity in the packing</a> , as well as the type of treatment facility used.	<b>Uruguay</b> To clarify <i>Category : TECHNICAL</i>
182	95	The NPPO of the exporting country should ensure that temperature mapping is conducted by an authorized person or organization and follows approved procedures. The temperature mapping should cover the use of different packaging types, each packing configuration to be used, and the arrangement and density of the <del>commodity</del> <a href="#">commodity in the packing</a> , as well as the type of treatment facility used.	<b>COSAVE</b> To clarify <i>Category : TECHNICAL</i>
183	96	Temperature mapping studies should be conducted to characterize the temperature distribution within the temperature treatment facility and the	<b>Canada</b> Technical detail. <i>Category : TECHNICAL</i>

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		<p>commodity (in relation to <a href="#">type</a>, the volume and arrangement of the <a href="#">commodity</a>, <a href="#">also considering the varying densities and moisture contents within the commodity</a>). 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 facility and commodity configuration. Temperature mapping should not be required for each consignment, as it is designed for each facility. Temperature mapping may rely on historical use of treatments for information on the configuration, arrangement and density of a facility or commodity. In other cases, the positions of the sensors are fixed as determined by the country and based on recognized research. Temperature mapping may also be conducted regularly to check possible changes of temperature distribution over time. Independent temperature mapping for a partially filled treatment facility is required to determine whether the temperature distribution is significantly different from a routine commodity and therefore whether the treatment needs to be adjusted accordingly.</p>	
184	96	<p>Temperature mapping studies should be conducted to characterize the temperature distribution within the temperature treatment facility and the commodity (in relation to the 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 facility and commodity configuration. Temperature mapping should not be required for each consignment, as it is designed for each facility. Temperature mapping may rely on historical use of treatments for information on the configuration, arrangement and density of a facility or commodity. In other cases, the positions of the sensors are fixed as determined by the <a href="#">country-NPPO</a> and based on recognized research. Temperature mapping may also be conducted regularly to check possible changes of temperature distribution over time. Independent temperature mapping for a partially filled treatment facility is required to determine whether the temperature distribution is significantly different from a routine commodity and therefore whether the treatment needs to be adjusted accordingly.</p>	<p><b>Peru</b> "NPPO" is a more appropriate term. <i>Category : TECHNICAL</i></p>
185	96	<p>Temperature mapping studies should be conducted to characterize the temperature distribution within the temperature treatment facility and the commodity (in relation to the 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 facility and commodity configuration. Temperature</p>	<p><b>Brazil</b> "NPPO" is a more appropriate term <i>Category : TECHNICAL</i></p>

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		<p>mapping should not be required for each consignment, as it is designed for each facility. Temperature mapping may rely on historical use of treatments for information on the configuration, arrangement and density of a facility or commodity. In other cases, the positions of the sensors are fixed as determined by the <del>country</del>-NPPO and based on recognized research. Temperature mapping may also be conducted regularly to check possible changes of temperature distribution over time. Independent temperature mapping for a partially filled treatment facility is required to determine whether the temperature distribution is significantly different from a routine commodity and therefore whether the treatment needs to be adjusted accordingly.</p>	
186	96	<p>Temperature mapping studies should be conducted to characterize the temperature distribution within the temperature treatment facility and the commodity (in relation to the 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 facility and commodity configuration. Temperature mapping should not be required for each consignment, as it is designed for each facility. Temperature mapping may rely on historical use of treatments for information on the configuration, arrangement and density of a facility or commodity. In other cases, the positions of the sensors are fixed as determined by the <del>country</del>-NPPO and based on recognized research. Temperature mapping may also be conducted regularly to check possible changes of temperature distribution over time. Independent temperature mapping for a partially filled treatment facility is required to determine whether the temperature distribution is significantly different from a routine commodity and therefore whether the treatment needs to be adjusted accordingly.</p>	<p><b>Argentina</b>  "NPPO" is a more appropriate term  Category : TECHNICAL</p>
187	96	<p>Temperature mapping studies should be conducted to characterize the temperature distribution within the temperature treatment facility and the commodity (in relation to the 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 facility and commodity configuration. Temperature mapping <del>should-is</del> not <del>be</del>-required for each consignment, as it is designed for each facility. Temperature mapping may rely on historical use of treatments for information on the configuration, arrangement and density of a facility or commodity. In other cases, the positions of the sensors are fixed as determined by the country and based on recognized research. Temperature mapping may also be conducted regularly to check possible changes of temperature</p>	<p><b>European Union</b>  This is a fact, as in the second part of the sentence ("as it is designed").  Category : EDITORIAL</p>

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		distribution over time. Independent temperature mapping for a partially filled treatment facility is required to determine whether the temperature distribution is significantly different from a routine commodity and therefore whether the treatment needs to be adjusted accordingly.	
188	96	Temperature mapping studies should be conducted to characterize the temperature distribution within the temperature treatment facility and the commodity (in relation to the 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 facility and commodity configuration. Temperature mapping should not be required for each consignment, as it is designed for each facility. Temperature mapping may rely on historical use of treatments for information on the configuration, arrangement and density of a facility or commodity. <del>In other cases, the positions of the sensors are fixed as determined by the country and based on recognized research.</del> Temperature mapping may also be conducted regularly to check possible changes of temperature distribution over time. Independent temperature mapping for a partially filled treatment facility is required to determine whether the temperature distribution is significantly different from a routine commodity and therefore whether the treatment needs to be adjusted accordingly.	<p><b>European Union</b> The sentence "In other cases, the positions of the sensors are fixed as determined by the country and based on recognized research." which was added during first consultation is rather contradictory with the first two sentences of the paragraph. We propose to delete as it is essentially repeating what is already covered elsewhere in this paragraph. Ans also what are "other cases"?</p> <p>If to be kept need to clarify it is the exporting country doing this. <i>Category : SUBSTANTIVE</i></p>
189	96	Temperature mapping studies should be conducted to characterize the temperature distribution within the temperature treatment facility and the commodity (in relation to the 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 facility and commodity configuration. Temperature mapping should not be required for each consignment, as it is designed for each facility. Temperature mapping may rely on historical use of treatments for information on the configuration, arrangement and density of a facility or commodity. In other cases, the positions of the sensors are fixed as determined by the country and based on recognized research. <del>It is recommended that</del> temperature mapping <del>may also</del> be conducted regularly to check possible changes of temperature distribution over time. Independent temperature mapping for a partially filled treatment facility is required to determine whether the temperature distribution is significantly different from a routine commodity and therefore whether the treatment needs to be adjusted accordingly.	<p><b>European Union</b> To give more guidance. <i>Category : EDITORIAL</i></p>
190	96	Temperature mapping studies should be conducted to characterize the	<b>European Union</b>

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		<p>temperature distribution within the temperature treatment facility and the commodity (in relation to the 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 facility and commodity configuration. Temperature mapping should not be required for each consignment, as it is designed for each facility. Temperature mapping may rely on historical use of treatments for information on the configuration, arrangement and density of a facility or commodity. In other cases, the positions of the sensors are fixed as determined by the country and based on recognized research. Temperature mapping may also be conducted regularly to check possible changes of temperature distribution over time. Independent temperature mapping for a partially filled treatment facility is required to determine whether the temperature distribution is significantly different from a routine <del>commodity load</del> and therefore whether the treatment needs to be adjusted accordingly.</p>	<p>Why "load" was changed to "commodity" following first consultation? There are no such thing as a "routine commodity" <i>Category : TECHNICAL</i></p>
191	96	<p>Temperature mapping studies should be conducted to characterize the temperature distribution within the temperature treatment facility and the commodity (in relation to the 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 facility and commodity configuration. Temperature mapping <del>should is</del> not <del>be</del> required for each consignment, as it is designed for each facility. Temperature mapping may rely on historical use of treatments for information on the configuration, arrangement and density of a facility or commodity. <del>In other cases, the positions of the sensors are fixed as determined by the country and based on recognized research. It is recommended that</del> temperature mapping <del>may also</del> be conducted regularly to check possible changes of temperature distribution over time. Independent temperature mapping for a partially filled treatment facility is required to determine whether the temperature distribution is significantly different from a routine <del>commodity load</del> and therefore whether the treatment needs to be adjusted accordingly.</p>	<p><b>EPP0</b> To give more guidance.  Why "load" was changed to "commodity" following first consultation? There are no such thing as a "routine commodity"  The sentence "In other cases, the positions of the sensors are fixed as determined by the country and based on recognized research." which was added during first consultation is rather contradictory with the first two sentences of the paragraph. We propose to delete as it is essentially repeating what is already covered elsewhere in this paragraph. Ans also what are "other cases"?  If to be kept need to clarify it is the exporting country doing this.  This is a fact, as in the second part of the sentence ("as it is designed"). <i>Category : EDITORIAL</i></p>
192	96	<p>Temperature mapping studies should be conducted to characterize the temperature distribution within the temperature treatment facility and the commodity (in relation to the volume and arrangement of the commodity). Such information <del>should be is</del> used to identify where the temperature monitoring and recording devices should be placed during the application of a temperature treatment using the same facility and commodity configuration.</p>	<p><b>United States of America</b> To clarify <i>Category : TECHNICAL</i></p>

#	Para	Text	Comment
		<p>Temperature mapping should not be required for each consignment, as it is designed for each facility. Temperature mapping may rely on historical use of treatments for information on the configuration, arrangement and density of a facility or commodity. In other cases, the positions of the sensors are fixed as determined by the country and based on recognized research. Temperature mapping may also be conducted regularly to check possible changes of temperature distribution over time. Independent temperature mapping for a partially filled treatment facility is required to determine whether the temperature distribution is significantly different from a routine commodity and therefore whether the treatment needs to be adjusted accordingly.</p>	
193	96	<p>Temperature mapping studies should be conducted to characterize the temperature distribution within the temperature treatment facility and the commodity (in relation to the 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 facility and commodity configuration. Temperature mapping should not be required for each consignment, as it is designed for each facility. Temperature mapping may rely on historical use of treatments for information on the configuration, arrangement and density of a facility or commodity. In other cases, the positions of the sensors are fixed as determined by the country and based on recognized research. <u>Where mapping shows that fixed sensors are not located in optimum positions to determine compliance with treatment requirements, compensatory treatment schedules may be used to ensure minimum requirements are met or exceeded throughout the treatment enclosure</u> Temperature mapping may also be conducted regularly to check possible changes of temperature distribution over time. Independent temperature mapping for a partially filled treatment facility is required to determine whether the temperature distribution is significantly different from a routine commodity and therefore whether the treatment needs to be adjusted accordingly.</p>	<p><b>New Zealand</b> Sophisticated kilns operate continuous heat treatments whereby product moves continuously into and out of the kiln. It would be impossible to place probes in the optimum positions to determine compliance for each treatment without imposing a significant impediment to throughput. <i>Category : TECHNICAL</i></p>
194	96	<p>Temperature mapping studies should be conducted to characterize the temperature distribution within the temperature treatment facility and the commodity (in relation to the 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 facility and commodity configuration. Temperature mapping should not be required for each consignment, as it is designed for each facility. Temperature mapping may rely on historical use of treatments for</p>	<p><b>Uruguay</b> It is more appropriate to refer to the NPPO <i>Category : TECHNICAL</i></p>



#	Para	Text	Comment
		<p>information on the configuration, arrangement and density of a facility or commodity. In other cases, the positions of the sensors are fixed as determined by the <del>country-NPPO</del> and based on recognized research. Temperature mapping may also be conducted regularly to check possible changes of temperature distribution over time. Independent temperature mapping for a partially filled treatment facility is required to determine whether the temperature distribution is significantly different from a routine commodity and therefore whether the treatment needs to be adjusted accordingly.</p>	
195	96	<p>Temperature mapping studies should be conducted to characterize the temperature distribution within the temperature treatment facility and the commodity (in relation to the 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 facility and commodity configuration. Temperature mapping should not be required for each consignment, as it is designed for each facility. Temperature mapping may rely on historical use of treatments for information on the configuration, arrangement and density of a facility or commodity. In other cases, the positions of the sensors are fixed as determined by the country and based on recognized research. Temperature mapping may also be conducted regularly to check possible changes of temperature distribution over time. Independent temperature mapping for a partially filled treatment facility is required to determine whether the temperature distribution is significantly different from a routine commodity and therefore whether the treatment needs to be adjusted accordingly.</p>	<p><b>Philippines</b>  In other cases, the positions of the sensors are fixed as determined by the country and based on recognized research: Please clarify. In PHL setup, sensor location is not fixed. They are placed based on result of the yearly cold spot test.  It is also recommended that a full load capacity will be used during cold spot test.  t for other commodities,  Category : <i>SUBSTANTIVE</i></p>
196	96	<p>Temperature mapping studies should be conducted to characterize the temperature distribution within the temperature treatment facility and the commodity (in relation to the 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 facility and commodity configuration. Temperature mapping should not be required for each consignment, as it is designed for each facility. Temperature mapping may rely on historical use of treatments for information on the configuration, arrangement and density of a facility or commodity. In other cases, the positions of the sensors are fixed as determined by the <del>country-NPPO</del> and based on recognized research. Temperature mapping may also be conducted regularly to check possible changes of temperature distribution over time. Independent temperature mapping for a partially filled treatment facility is required to determine whether the temperature distribution</p>	<p><b>COSAVE</b>  "NPPO" is a more appropriate term  Category : <i>TECHNICAL</i></p>

#	Para	Text	Comment
		is significantly different from a routine commodity and therefore whether the treatment needs to be adjusted accordingly.	
197	99	When the core temperature of the commodity needs to be monitored during treatment, sensors should be inserted into appropriate units of the <del>commodity</del> <u>commodity with the exception for dielectric heat treatment where surface temperature is measured</u> . In mixed commodities, sensors should be placed appropriately to allow monitoring of the different commodities to ensure that they have all reached the required temperature and met the temperature conditions throughout the treatment cycle.	<p><b>APPPC</b></p> <p><b>Nepal</b> Support APPPC comments</p> <p><b>Singapore</b> Singapore support APPPC comment.</p> <p><b>Thailand</b> Thailand support this APPPC comment.</p> <p><b>Korea, Republic of</b> Republic of Korea supports this APPPC comment.</p> <p><b>Malaysia</b> Malaysia agreed with APPPC</p> <p><b>Viet Nam</b> Vietnam support this APPPC comment.</p> <p><i>Category : SUBSTANTIVE</i></p>
198	99	When the core temperature of the commodity needs to be monitored during treatment, sensors should be inserted into appropriate units of the <del>commodity</del> <u>commodity to represent the most challenging scenario to reach target temperature</u> . In mixed commodities, sensors should be placed appropriately to allow monitoring of the different commodities to ensure that they have all reached the required temperature and met the temperature conditions throughout the treatment cycle.	<p><b>Canada</b></p> <p><i>Category : TECHNICAL</i></p>
199	99	When the core temperature of the commodity needs to be monitored during treatment, sensors should be inserted into appropriate units of the commodity. In mixed commodities, sensors should be placed appropriately to allow monitoring of the different commodities to ensure that they have all reached the required temperature and met the temperature conditions throughout the treatment cycle.	<p><b>United States of America</b> Mapping of the sensor placement is based on research. Therefore, commodity treatments mapping should be based on research. To our knowledge, there is no research done on mixed commodities.</p> <p><i>Category : TECHNICAL</i></p>
200	99	When the core temperature of the commodity needs to be monitored during treatment, sensors should be <del>inserted into</del> <u>placed in</u> appropriate units of the commodity. In mixed commodities, sensors should be placed appropriately to allow monitoring of the different commodities to ensure that they have all reached the required temperature and met the temperature conditions throughout the treatment cycle.	<p><b>Korea, Republic of</b></p> <p><i>Category : TECHNICAL</i></p>
201	100	Sensors should be placed in areas of the commodity that will take the longest <u>time</u> to reach <u>required</u> core temperature (e.g. centre of a bag in the centre bag of a pallet).	<p><b>APPPC</b></p> <p><b>Nepal</b> Support APPPC comments</p> <p><b>Singapore</b></p>

#	Para	Text	Comment
			<p>Singapore support APPPC comment to add in these words to make the sentence clearer.</p> <p><b>China</b> China support to this APPPC comment.</p> <p><b>Thailand</b> Thailand support this APPPC comment.</p> <p><b>Korea, Republic of</b> Republic of Korea supports this APPPC comment.</p> <p><b>Malaysia</b> Malaysia agreed with APPPC</p> <p><b>Viet Nam</b> Vietnam support this APPPC comment.</p> <p><i>Category : SUBSTANTIVE</i></p>
202	100	Sensors should be placed in areas of the commodity <del>that will take the longest based on thermal mapping to reach core temperature (temperature.g. centre of a bag in the centre bag of a pallet).</del>	<p><b>United States of America</b> First change - more accurate. Deletion of example - it is not correct. See also United States comment on Paragraph 99. <i>Category : TECHNICAL</i></p>
203	100	Sensors should be placed in areas of the commodity that will take the longest <del>time</del> to reach <del>core the required</del> temperature (e.g. centre of a bag in the centre bag of a pallet).	<p><b>Japan</b> Editorial <i>Category : EDITORIAL</i></p>
204	100	Sensors <del>for core temperature</del> should be placed in areas of the commodity that will take the longest <del>time</del> to reach <del>core the required</del> temperature (e.g. centre of a bag in the centre bag of a pallet).	<p><b>Korea, Republic of</b> <i>Category : SUBSTANTIVE</i></p>
205	101	The sensor <del>for core temperature</del> 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.	<p><b>APPPC</b></p> <p><b>Nepal</b> Support APPPC comments</p> <p><b>China</b> China support to this APPPC comment.</p> <p><b>Thailand</b> Thailand support this APPPC comment.</p> <p><b>Korea, Republic of</b> Republic of Korea supports this APPPC comment.</p> <p><b>Malaysia</b> Malaysia agreed with APPPC</p> <p><b>Viet Nam</b> Vietnam support this APPPC comment.</p> <p><i>Category : SUBSTANTIVE</i></p>
206	101	The <del>sensor-sensors for core temperature</del> 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.	<p><b>Korea, Republic of</b> <i>Category : TECHNICAL</i></p>
207	102	The sensor <del>for core temperature</del> should be completely encased by the commodity to avoid heat travelling down protruding components and giving	<p><b>APPPC</b></p> <p><b>Nepal</b></p>

#	Para	Text	Comment
		false readings. Core sensors that are not completely encased should be sealed into the holes using heat resistant, insulating filler.	<p>Support APPPC comments</p> <p><b>China</b> China support to this APPPC comment.</p> <p><b>Thailand</b> Thailand support this APPPC comment.</p> <p><b>Korea, Republic of</b> Republic of Korea supports this APPPC comment.</p> <p><b>Malaysia</b> Malaysia agreed with APPPC</p> <p><b>Viet Nam</b> Vietnam support this APPPC comment.</p> <p><i>Category : SUBSTANTIVE</i></p>
208	102	The sensor should be completely encased by the commodity to avoid heat travelling down protruding components and giving false readings. Core sensors that are not completely encased should be sealed into the holes using heat resistant, insulating filler. <a href="#">The sensor should be checked to be recording temperature only at its tip inserted at targeted spot and not with larger area around the tip.</a>	<p><b>Canada</b> Technical detail. <i>Category : TECHNICAL</i></p>
209	102	The sensor should be completely encased by the commodity to avoid <del>heat travelling down protruding components and giving</del> false readings. Core sensors that are not completely encased should be sealed into the holes using heat resistant, insulating filler.	<p><b>United States of America</b> May be heat or cold, so suggest deletion <i>Category : TECHNICAL</i></p>
210	102	The sensor should be completely encased by the commodity to avoid heat travelling down protruding components and giving false readings. Core sensors that are not completely encased should be sealed into the holes using heat resistant, insulating filler.	<p><b>United States of America</b> "Encased" - Probe needs to be fully covered by the commodity. This wording may not translate well in another language. 'The sensor may not be exposed' might work better <i>Category : EDITORIAL</i></p>
211	102	The <del>sensor</del> <a href="#">sensors for core temperature</a> should be completely encased by the commodity to avoid heat travelling down protruding components and giving false readings. Core sensors that are not completely encased should be sealed into the holes using heat resistant, insulating filler.	<p><b>Korea, Republic of</b> <i>Category : TECHNICAL</i></p>
212	103	<del>Probing close to metal objects such as nails should be avoided, as heat transfer along the metal objects may interfere with the integrity of the temperature recorded by the core sensor.</del>	<p><b>United States of America</b> Suggest deletion. Too precise for a standard - more appropriate for a manual. <i>Category : TECHNICAL</i></p>
213	103	<del>Probing</del> <a href="#">Placing the sensor</a> close to metal objects such as nails should be avoided, as heat transfer along the metal objects may interfere with the integrity of the temperature recorded by the core sensor.	<p><b>Japan</b> For consistency <i>Category : EDITORIAL</i></p>
214	104	For small commodities such as cherries and grapes, the sensor should be inserted through enough of the fruit to ensure that it monitors pulp temperature and not ambient air temperature.	<p><b>United States of America</b> We prefer the wording in this paragraph of how to use a probe more than in paragraph 102. It does a better job of explaining how the probe should be used. Suggest using the best of both paragraphs and combining them.</p>

#	Para	Text	Comment
			<i>Category : TECHNICAL</i>
215	104	For small commodities such as cherries and grapes, the sensor should be inserted through enough of the <del>fruit</del> <u>fruits</u> to ensure that it monitors pulp temperature and not ambient air temperature.	<b>Korea, Republic of</b> <i>Category : EDITORIAL</i>
216	104	For small commodities such as cherries and grapes, the sensor should be inserted through enough of the fruit to ensure that it monitors pulp temperature and not ambient air temperature.	<b>Nepal</b> What means of through enough of the fruit . <i>Category : EDITORIAL</i>
217	105	For <del>larger-all</del> commodities, the sensor should be placed in the largest item, <del>which-where it</del> may take the longest <u>time</u> to reach the required <u>core</u> temperature.	<b>APPPC</b>  <b>Nepal</b> Support APPPC comments <b>Thailand</b> Thailand support this APPPC comment.  <b>Malaysia</b> Malaysia agreed with APPPC <b>Viet Nam</b> Vietnam support this APPPC comment. <i>Category : EDITORIAL</i>
218	105	For larger commodities, the sensor should be placed in the largest item, which may take the longest <u>time</u> to reach the required temperature.	<b>United States of America</b> To add clarity <i>Category : TECHNICAL</i>
219	105	<del>For larger commodities, the</del> <u>The</u> sensor should be placed in the largest item, <del>which-where it</del> may take the longest <u>time</u> to reach the required <u>core</u> temperature-.	<b>Korea, Republic of</b> <i>Category : EDITORIAL</i>
220	105	For larger commodities, the sensor should be placed in the largest item, which may take the longest to reach the required temperature.	<b>Nepal</b> What means longest <i>Category : EDITORIAL</i>
221	108	monitoring of the <del>core</del> temperature of the commodity	<b>European Union</b> As already commented during first consultation, monitoring of the core temperature of the commodity should not be imposed.  Indeed for cold treatments against fruit flies the protocols that impose that probes are inserted in the fruit core are often costly and difficult to implement. As the duration of these treatments is usually long (for example 16 or 18 days for <i>Ceratitis capitata</i> on Citrus limon), it can be more convenient and as at least as reliable to develop cold treatments based on the monitoring of air temperature (in cold rooms or in self-refrigerated containers), provided the protocols ensure that the whole commodity load has attained the air temperature before the treatment duration is measured. Please see paragraph 71: "The commodity may be precooled to the temperature at which the commodity will be treated prior to beginning treatment. ". Refer to core temperature or air temperature. <i>Category : SUBSTANTIVE</i>

#	Para	Text	Comment
222	108	monitoring of the <del>core</del> temperature of the commodity	<p><b>EPP0</b> As already commented during first consultation, monitoring of the core temperature of the commodity should not be imposed.</p> <p>Indeed for cold treatments against fruit flies the protocols that impose that probes are inserted in the fruit core are often costly and difficult to implement. As the duration of these treatments is usually long (for example 16 or 18 days for <i>Ceratitis capitata</i> on Citrus limon), it can be more convenient and as at least as reliable to develop cold treatments based on the monitoring of air temperature (in cold rooms or in self-refrigerated containers), provided the protocols ensure that the whole commodity load has attained the air temperature before the treatment duration is measured. Please see paragraph 71: "The commodity may be precooled to the temperature at which the commodity will be treated prior to beginning treatment."</p> <p><i>Category : SUBSTANTIVE</i></p>
223	110	The number of sensors will depend on factors such as the treatment schedule, commodity size, commodity type and the type of treatment facility. The number of sensors required to monitor the temperature of the commodity also depends on the temperature mapping and the size of the treatment <del>structure</del> facility.	<p><b>Peru</b> For consistency. <i>Category : TECHNICAL</i></p>
224	110	The number of sensors will depend on factors such as the treatment schedule, commodity size, commodity type and the type of treatment facility. The number of sensors required to monitor the temperature of the commodity also depends on the temperature mapping and the size of the treatment <del>structure</del> facility.	<p><b>Brazil</b> For consistency <i>Category : TECHNICAL</i></p>
225	110	The number of sensors will depend on factors such as the treatment schedule, commodity size, commodity type and the type of treatment facility. The number of sensors required to monitor the temperature of the commodity also depends on the temperature mapping and the size of the treatment <del>structure</del> facility.	<p><b>Argentina</b> For consistency <i>Category : TECHNICAL</i></p>
226	110	The <u>required</u> number of sensors <del>will depend depends</del> on factors such as the treatment schedule, commodity size, commodity type and the type of treatment facility. The number of sensors required to monitor the temperature of the commodity also depends on the temperature mapping and the size of the treatment structure.	<p><b>European Union</b> Expressed as requirement. <i>Category : TECHNICAL</i></p>
227	110	The number of sensors will depend on factors such as the treatment schedule, commodity size, commodity type and the type of treatment facility. The number of sensors required to monitor the temperature of the commodity also depends on the temperature mapping and the size of the treatment <del>structure</del> facility.	<p><b>European Union</b> For consistency ("facility" is the term used in the rest of the standard, see for example end of first sentence of this paragraph). <i>Category : EDITORIAL</i></p>

#	Para	Text	Comment
228	110	The <u>required</u> number of sensors <del>will depend</del> <u>depends</u> on factors such as the treatment schedule, commodity size, commodity type and the type of treatment facility. The number of sensors required to monitor the temperature of the commodity also depends on the temperature mapping and the size of the treatment <del>structure</del> <u>facility</u> .	<b>Eppo</b> expressed as requirement  For consistency ("facility" is the term used in the rest of the standard, see for example end of first sentence of this paragraph). <i>Category : EDITORIAL</i>
229	110	The number of sensors will depend on factors such as the treatment schedule, commodity size, commodity type and the type of treatment facility. The number of sensors required to monitor the temperature of the commodity also depends on the temperature mapping and the size of the treatment <del>structure</del> <u>facility</u> .	<b>Uruguay</b> For consistency <i>Category : TECHNICAL</i>
230	110	The number of sensors will depend on factors such as the treatment schedule, commodity size, commodity type and the type of treatment facility. The number of sensors required to monitor the temperature of the commodity also depends on the temperature mapping and the size of the treatment <del>structure</del> <u>facility</u> .	<b>Thailand</b> The term "facility" should be used in consistent within paragraph. <i>Category : EDITORIAL</i>
231	110	The number of sensors will depend on factors such as the treatment schedule, commodity size, commodity type and the type of treatment facility. The number of sensors required to monitor the temperature of the commodity also depends on the temperature mapping and the size of the treatment <del>structure</del> <u>facility</u> .	<b>COSAVE</b> For consistency <i>Category : TECHNICAL</i>
232	111	Monitoring of the air temperature provides useful information <u>and may be sufficient</u> for the verification of the commodity treatment, <del>but not as a replacement for commodity temperature</del> .	<b>European Union</b> Please see comment on paragraph 108, and note that "but not as a replacement for commodity temperature" was added as a result of only one country's comment. The other countries/RPPOs had no difficulties with the sentence as sent for the first consultation. <i>Category : SUBSTANTIVE</i>
233	111	Monitoring of the air temperature provides useful information for the verification of the commodity treatment, <del>but not as a replacement for commodity temperature</del> .	<b>Eppo</b> Due to a technical problem encountered in the OCS system that the IPPC and the PleaseReview support team could not solve, the Eppo Secretariat was obliged to publish a wrong proposed change and explanations. <b>(Note from the IPPC Secretariat: We corrected the change and comment manually.)</b> The correct change includes only deletion of the words 'but not as a replacement for commodity temperature'. The explanation should be as follows : "Please see comment on paragraph 108, and note that 'but not as a replacement for commodity temperature' was added as a result of only one country's comment. The other countries/RPPOs had no difficulties with the sentence as sent for first consultation." We hope that in future versions of OCS this kind of situation could be avoided. <i>Category : SUBSTANTIVE</i>
234	112	Temperature treatment facilities should have <del>at least three sensors</del> <u>the minimum number of sensors as determined by thermal mapping</u> . The number of additional sensors may be adjusted to take into account factors such as the	<b>United States of America</b> Use thermal mapping which is technically justified. <i>Category : TECHNICAL</i>

#	Para	Text	Comment
		density and composition of the commodity, and the load configuration. Monitoring of the outlet air temperature may also be required.	
235	112	<del>Temperature</del> <u>The temperature</u> treatment facilities should <del>have-use</del> at least three sensors. The number of additional sensors may be adjusted to take into account factors such as the density and composition of the commodity, and the load configuration. Monitoring of the outlet air temperature may also be required.	<b>European Union</b> Improvement. <i>Category : EDITORIAL</i>
236	112	Temperature treatment facilities should have at least three sensors. The number of additional sensors <del>may-should</del> be adjusted to take into account factors such as the density and composition of the commodity, and the load configuration. Monitoring of the outlet air temperature may also be required.	<b>European Union</b> More appropriate term in this sentence. Otherwise write : "It is recommended that the number of additional sensors be adjusted to take into account factors such as the density and composition of the commodity, and the load configuration." <i>Category : SUBSTANTIVE</i>
237	112	Temperature treatment facilities should have at least three sensors. The number of additional sensors may be adjusted to take into account factors such as the density and composition of the commodity, and the load configuration. <del>Monitoring of the</del> <u>The outlet air temperature may also should be required</u> <u>always monitored, however, when no outlet exists, the air at the point furthest from the inlet should be monitored.</u>	<b>European Union</b> The outlet air should be monitored and indications for when no outlet exists are suggested. <i>Category : TECHNICAL</i>
238	112	<del>Temperature</del> <u>The temperature</u> treatment facilities should <del>have-use</del> at least three sensors. The number of additional sensors <del>may-should</del> be adjusted to take into account factors such as the density and composition of the commodity, and the load configuration. <del>Monitoring of the</del> <u>The outlet air temperature may also should be required</u> <u>always monitored, however, when no outlet exists, the air at the point furthest from the inlet should be monitored.</u>	<b>EPPO</b> More appropriate term in this sentence. Otherwise write : "It is recommended that the number of additional sensors be adjusted to take into account factors such as the density and composition of the commodity, and the load configuration."  The outlet air should be monitored and indications for when no outlet exists are suggested.  Improvement <i>Category : EDITORIAL</i>
239	118	<del>a means to ensure that the commodity is fully submerged.</del>	<b>United States of America</b> Suggest deleting and combining into paragraph 119 <i>Category : EDITORIAL</i>
240	119	Sensors should be positioned <del>10 cm underwater</del> <u>fully submerged</u> to ensure that they can monitor the uniformity of the treatment temperature. Depending on the requirements of the treatment (e.g. whether it is the core temperature of the commodity or the water temperature that needs to be maintained at a specific temperature for a given time), commodity sensors may or may not be required. If they are required, the largest units of the commodity should be selected for sensor placement.	<b>United States of America</b> Combined with paragraph 118 for simplicity <i>Category : EDITORIAL</i>
241	119	Sensors should be <del>completely immersed in a water bath (e.g. positioned 10 cm underwater)</del> <u>underwater</u> to ensure that they can monitor the uniformity of the	<b>Japan</b> -The important point should be immersing sensors completely in a water bath rather than to position specifically 10cm underwater.



#	Para	Text	Comment
		treatment temperature. Depending on the requirements of the treatment (e.g. whether it is the core temperature of the commodity or the water temperature that needs to be maintained at a specific temperature for a given time), commodity sensors may or may not be required. If they are required, the largest <del>units-unit</del> of the commodity should be selected for sensor placement.	-editorial Category : <i>SUBSTANTIVE</i>
242	119	Sensors should be positioned <del>10-cm</del> underwater <u>in the lower third of the tank</u> to ensure that they can monitor the uniformity of the treatment temperature. Depending on the requirements of the treatment (e.g. whether it is the core temperature of the commodity or the water temperature that needs to be maintained at a specific temperature for a given time), commodity sensors may or may not be required. If they are required, the largest units of the commodity should be selected for sensor placement.	<b>Thailand</b> This practice is generally used according to the procedure of hot water immersion treatment of USDA and India. Category : <i>TECHNICAL</i>
243	119	Sensors should be positioned 10 cm underwater to ensure that they can monitor the uniformity of the treatment temperature. Depending on the requirements of the treatment (e.g. whether it is the core temperature of the commodity or the water temperature that needs to be maintained at a specific temperature for a given time), commodity sensors may or may not be required. If they are required, the largest units of the commodity should be selected for sensor placement.	<b>Philippines</b> Please identify what commodities do not require commodity sensors during hot water immersion treatment. Is this for disinfection or disease control? (eg. mangoes against anthracnose or stem end rot) Category : <i>SUBSTANTIVE</i>
244	125	The <u>required</u> number of sensors <del>will depend</del> <u>depends</u> on factors such as commodity size and configuration and the type of treatment facility. The largest units of the commodity should be selected for sensor placement and the sensors should be placed in the coldest part of the commodity and the heat treatment facility, as identified by temperature mapping.	<b>European Union</b> Expressed as requirement. Category : <i>TECHNICAL</i>
245	125	The <u>required</u> number of sensors <del>will depend</del> <u>depends</u> on factors such as commodity size and configuration and the type of treatment facility. The largest units of the commodity should be selected for sensor placement and the sensors should be placed in the coldest part of the commodity and the heat treatment facility, as identified by temperature mapping.	<b>EPPO</b> Requirement Category : <i>TECHNICAL</i>
246	125	The number of sensors will depend on factors such as <u>thermal mapping</u> , commodity size and configuration and the type of treatment facility. The largest units of the commodity should be selected for sensor placement and the sensors should be placed in the coldest part of the commodity and the heat treatment facility, as identified by temperature mapping.	<b>United States of America</b> Suggest adding thermal mapping here Category : <i>TECHNICAL</i>
247	125	The number of sensors will depend on factors such as commodity size and <del>configuration and the configuration</del> , type of treatment <del>facility</del> <u>facility or as required by the importing country</u> . The largest units of the commodity should	<b>Philippines</b>  Category : <i>SUBSTANTIVE</i>

#	Para	Text	Comment
		be selected for sensor placement and the sensors should be placed in the coldest part of the commodity and the heat treatment facility, as identified by temperature mapping.	
248	126	The treatment schedule should include:	<b>Philippines</b> add (5) air cooling: gradual cooling of the treated commodities, utilizing air inside the facility <i>Category : TECHNICAL</i>
249	127	heat-up time (also known as run-up or ramp-up time): the minimum time allowed for all the temperature sensors to reach the required minimum temperature in the commodity	<b>United States of America</b> Note that ramp-up time is built into the treatment schedule <i>Category : TECHNICAL</i>
250	130	<del>dwelt holding</del> time: the length of time all commodity temperature sensors must maintain the minimum core or pulp temperature and air temperature sensors must maintain the minimum air temperature	<b>APPPC</b>  <b>Nepal</b> Support APPPC comments <b>Singapore</b> Singapore support the APPPC comment - "dwell" is not a commonly used word. <b>Thailand</b> Thailand support this APPPC comment.  <b>Korea, Republic of</b> Republic of Korea supports the APPPC comment. <b>Malaysia</b> Malaysia agreed with APPPC <b>Viet Nam</b> Vietnam support this APPPC comment. <i>Category : EDITORIAL</i>
251	130	<del>dwelt holding</del> time: the length of time all commodity temperature sensors must maintain the minimum core or pulp temperature and air temperature sensors must maintain the minimum air temperature	<b>Philippines</b>  <i>Category : SUBSTANTIVE</i>
252	131	total heat treatment time ( <del>instead of (1) or in the case of insufficient conditions in (1)</del> ): total time from the start of heating of the commodity to the end of dwell time	<b>European Union</b> The deleted, former bracketed text seems technically incorrect, or in the best case very confusing and superfluous. <i>Category : TECHNICAL</i>
253	131	total heat treatment <del>time (instead of (1) or in the case of insufficient conditions in (1))</del> time: total time from the start of heating of the commodity to the end of dwell time	<b>EPPO</b> The deleted, former bracketed text seems technically incorrect, or in the best case very confusing and superfluous. <i>Category : TECHNICAL</i>
254	131	total heat treatment time (instead of (1) or in the case of insufficient conditions in (1)): total time from the start of heating of the commodity to the end of dwell time	<b>Philippines</b> total treatment time: heat-up time plus holding time plus air cooling <i>Category : TECHNICAL</i>
255	134	<del>Dry heat treatment requires:</del> <u>Dry heat treatment requires:</u>	<b>Argentina</b> Modify font size and should not be in bold letter. <i>Category : EDITORIAL</i>

#	Para	Text	Comment
256	134	<del>Dry heat treatment requires:</del> <u>Dry heat treatment requires:</u>	<b>European Union</b> Not in bold. <i>Category : EDITORIAL</i>
257	134	<del>Dry heat treatment requires:</del> <u>Dry heat treatment requires:</u>	<b>EPPO</b> Not in bold. <i>Category : EDITORIAL</i>
258	134	<del>Dry heat treatment requires:</del> <u>Dry heat treatment requires:</u>	<b>Uruguay</b> Modify font size and text should not be bolded <i>Category : EDITORIAL</i>
259	134	<del>Dry heat treatment requires:</del> <u>Dry heat treatment requires:</u>	<b>COSAVE</b> Modify font size and should not be in bold letter. <i>Category : EDITORIAL</i>
260	136	monitoring of the core temperature of the commodity, <u>when appropriate</u>	<b>European Union</b> Please see last sentence of paragraph 142. <i>Category : SUBSTANTIVE</i>
261	136	monitoring of the core temperature of the commodity, <u>when appropriate</u>	<b>EPPO</b> Please see last sentence of paragraph 142. <i>Category : SUBSTANTIVE</i>
262	138	In dry heat treatment schedules that specify air temperature and <del>moisture</del> <u>humidity</u> requirements, air temperature should be monitored by dry bulb thermometer and <del>moisture</del> <u>humidity</u> should be monitored by wet and dry bulb thermometer, or by digital thermometer in combination with humidity sensors.	<b>APPPC</b>  <b>Nepal</b> Support APPPC comments <b>Thailand</b> Thailand support this APPPC comment.  <b>Korea, Republic of</b> Republic of Korea supports this APPPC comment. <b>Viet Nam</b> Vietnam support this APPPC comment. <i>Category : EDITORIAL</i>
263	138	In dry heat treatment schedules that specify air <u>temperature, commodity</u> temperature ( <u>in or on commodity surface</u> ) and moisture requirements, air temperature should be monitored by <del>dry bulb thermometer-temperature sensor</del> and moisture should be monitored by wet and dry bulb thermometer, or by digital thermometer in combination with humidity sensors.	<b>United States of America</b> To clarify. Should not list specific requirements in the standard. <i>Category : TECHNICAL</i>
264	138	In dry heat treatment schedules that specify air temperature and moisture requirements, air temperature should be monitored by dry bulb thermometer and moisture should be monitored <del>by-with humidity sensors, in combination</del> <u>with</u> wet and dry bulb thermometer, or <del>by digital thermometer in combination</del> with <del>humidity sensors</del> <u>digital thermometer</u> .	<b>Panama</b> Mejor redacción del texto <i>Category : EDITORIAL</i>
265	138	In dry heat treatment schedules that specify air temperature and <del>moisture</del> <u>humidity</u> requirements, air temperature should be monitored by dry bulb thermometer and <del>moisture</del> <u>humidity</u> should be monitored by wet and dry bulb thermometer, or by digital thermometer in combination with humidity sensors.	<b>Thailand</b> The term "humidity" is the corrective word in this context. <i>Category : EDITORIAL</i>

#	Para	Text	Comment
266	138	In dry heat treatment schedules that specify air temperature and moisture requirements, air temperature should be monitored <del>by dry bulb thermometer and moisture should be monitored by with humidity sensors, in combination with</del> wet and dry bulb thermometer, or <del>by digital thermometer in combination with humidity sensors</del> thermometer.	<b>OIRSA</b> Major wording of paragraph <i>Category : EDITORIAL</i>
267	139	Sensors should be located within the airstream entering a facility running a one-way airflow. <del>Sensors</del> Surface, air and pulp sensors should be located as far from the wall of the treatment facility as possible and away from any heat source. If transverse control or fan reversal is used, additional sensors may be required.	<b>United States of America</b> Sensors will be located in the surface, air and pulp <i>Category : TECHNICAL</i>
268	139	Sensors should be located <del>within the airstream entering a facility running a one-way airflow. Sensors should be located away from any heat source and</del> as far from the wall of the treatment facility as possible <del>and away from any heat source. If transverse control or fan reversal is used</del> alternatively, additional sensors <del>schedules</del> may be <del>required</del> developed based on a series of test treatments during which the temperature farthest from the wall of the facility has been measured and correlated with the temperature at the sensor location.	<b>New Zealand</b> Sophisticated kilns operate continuous heat treatments whereby product moves continuously into and out of the kiln. Sensors are located along the walls. It would be impossible to place probes in the optimum positions to determine compliance for each treatment without imposing a significant impediment to throughput. <i>Category : TECHNICAL</i>
269	140	<del>The use of additional</del> Additional sensors <del>compensates</del> may be installed to <del>compensate</del> for possible sensor malfunctioning.	<b>European Union</b> Proposal to use the same wording as in paragraph 113. <i>Category : EDITORIAL</i>
270	140	<del>The use of additional</del> Additional sensors <del>compensates</del> may be installed to <del>compensate</del> for possible sensor malfunctioning.	<b>EPPO</b> Proposal to use the same wording as in paragraph 113. <i>Category : EDITORIAL</i>
271	140	<del>The use of additional sensors compensates for possible sensor malfunctioning.</del>	<b>United States of America</b> This is highly recommended but does not compensate for sensor malfunction. <i>Category : TECHNICAL</i>
272	141	Dry heat treatment for <del>nuts and seeds</del> all commodities should have a minimum number of <del>three temperature</del> sensors <del>placed in the commodity at locations</del> as determined by temperature mapping studies.	<b>United States of America</b> Should not introduce requirements into the standard <i>Category : SUBSTANTIVE</i>
273	141	Dry heat treatment for nuts and seeds should have <del>a minimum appropriate number of three</del> temperature sensors placed in the commodity at locations determined by temperature mapping studies.	<b>Japan</b> Temperature mapping studies should be conducted to characterize the temperature distribution(para 95). The number of sensors should be determined depending on the temperature distribution. <i>Category : TECHNICAL</i>
274	142	Where the treatment temperature is monitored using sensors inserted into the commodity, they should be suitable for measuring commodity core temperature. The overall number of sensors should be adjusted according to the treatment type, commodity type, commodity <del>size</del> size, <del>thermal mapping</del> and configuration, and the type of treatment facility. Monitoring the core temperature of the commodity, when appropriate, may provide additional	<b>United States of America</b> Thermal mapping should be included <i>Category : TECHNICAL</i>

#	Para	Text	Comment
		information on the verification of dry heat treatment, compared to monitoring air temperature alone.	
275	146	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 <del>probes</del> <u>sensors</u> may be required as appropriate.	<b>Peru</b> For consistency Category : TECHNICAL
276	146	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 <del>probes</del> <u>sensors</u> may be required as appropriate.	<b>Brazil</b> For consistency Category : TECHNICAL
277	146	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 <del>probes</del> <u>sensors</u> may be required as appropriate.	<b>Argentina</b> For consistency Category : TECHNICAL
278	146	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 <del>probes</del> <u>sensors</u> may be required as appropriate.	<b>Panama</b> Se observó que en casi todo el borrador de la 2ª revisión el término "probe" (sonda) fue reemplazado por "sensor". Únicamente en este párrafo (146) se mantuvo "probes". Si se hizo el cambio, se recomienda unificar el criterio a "sensor".  Category : TECHNICAL
279	146	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 <del>probes</del> <u>sensors</u> may be required as appropriate.	<b>Uruguay</b> For consistency Category : TECHNICAL
280	146	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 <del>probes</del> <u>sensors</u> may be required as appropriate.	<b>OIRSA</b> Most appropriate word Category : EDITORIAL
281	146	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 <del>probes</del> <u>sensors</u> may be required as appropriate.	<b>COSAVE</b> For consistency Category : TECHNICAL
282	149	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 and the treatment has been properly applied. Systems for treatment delivery should be designed, used and monitored to ensure that treatments are properly conducted and commodities are protected from <del>infestation and reinfestation</del> <u>infestation</u> .	<b>Peru</b> "Reinfestation" is included in "infestation". Category : TECHNICAL

#	Para	Text	Comment
283	149	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 and the treatment has been properly applied. Systems for treatment delivery should be designed, used and monitored to ensure that treatments are properly conducted and commodities are protected from <del>infestation and reinfestation</del> <u>infestation</u> .	<b>Brazil</b> "Reinfestation" is included in "infestation". Category : TECHNICAL
284	149	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 and the treatment has been properly applied. Systems for treatment delivery should be designed, used and monitored to ensure that treatments are properly conducted and commodities are protected from <del>infestation and reinfestation</del> <u>infestation</u> .	<b>Argentina</b> "Reinfestation" is included in "infestation". Category : TECHNICAL
285	149	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 and the treatment has been properly applied. Systems for treatment delivery should be designed, used and monitored to ensure that treatments are properly conducted and commodities are protected from infestation and <del>reinfestation</del> <u>contamination after treatment</u> .	<b>European Union</b> More precise (see paragraph 154). Category : TECHNICAL
286	149	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 and the treatment has been properly applied. Systems for treatment delivery should be designed, used and monitored to ensure that treatments are properly conducted and commodities are protected from infestation and <del>reinfestation</del> <u>contamination after treatment</u> .	<b>EPPO</b> More precise (see paragraph 154). Category : TECHNICAL
287	149	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 and the treatment has been properly applied. Systems for treatment delivery should be designed, used and monitored to ensure that treatments are properly conducted and commodities are protected from <del>infestation and reinfestation</del> <u>infestation</u> .	<b>Uruguay</b> Reinfestation is included in infestation Category : TECHNICAL
288	149	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 and the treatment has been properly applied. Systems for treatment delivery should be designed, used and monitored to ensure that treatments are properly conducted and commodities are protected from <del>infestation and reinfestation</del> <u>infestation</u> .	<b>COSAVE</b> "Reinfestation" is included in "infestation". Category : EDITORIAL
289	152	Treatment facilities should be subject to approval by the NPPO in the country	<b>APPPC</b>

#	Para	Text	Comment
		<p>in which the facility is located before phytosanitary treatments are applied there. In cases where the treatment is applied during transport, the NPPO may approve the procedures for this application. NPPOs should maintain a list of approved facilities.</p> <p><u>The key elements for the approval of temperature treatment facilities, may include consideration of heating capacity, humidifying performance, circulating wind speed, sealing performance, cooling and cooling capacity of cold treatment facilities.</u></p>	<p><b>Nepal</b> Support APPPC comments</p> <p><b>Singapore</b> Singapore support the APPPC comments.</p> <p><b>China</b> China support to this APPPC comment.</p> <p><b>Thailand</b> Thailand support this APPPC comment.</p> <p><b>Bangladesh</b> Bangladesh agree with APPPC comment.</p> <p><b>Viet Nam</b> Vietnam support this APPPC comment.</p> <p><i>Category : SUBSTANTIVE</i></p>
290	152	Treatment facilities should be subject to approval by the NPPO in the country in which the facility is located before phytosanitary treatments are applied there. In cases where the treatment is applied during transport, the NPPO may approve the procedures for this application. NPPOs should maintain a list of approved facilities.	<p><b>Cameroon</b> Prévoir quelques indications sur les points critiques permettant d'évaluer une installation. Ceci rendrait la mise en oeuvre plus aisée. Une check-list pourrait être fournie, passant en revue les points à examiner, à défaut, il faudrait élaborer un guide pour faciliter la mise en oeuvre de cette norme</p> <p><i>Category : TECHNICAL</i></p>
291	152	Treatment facilities should be subject to approval by the NPPO in the country in which the facility is located before phytosanitary treatments are applied there. In cases where the treatment is applied during transport, the NPPO may approve the procedures for this application. NPPOs should maintain a list of approved facilities.	<p><b>China</b> Adding the key elements for the approval of temperature treatment facilities, such as heating capacity, humidifying performance, circulating wind speed, sealing performance, cooling and cooling capacity of cold treatment facilities.</p> <p><i>Category : SUBSTANTIVE</i></p>
292	153	<b>5.2 Prevention of infestation after treatment</b>	<p><b>Ozone Secretariat</b> Additional proposed text: "If packaging is not treated with the commodity then it needs to be stored in a pest free environment. Protected from substitution with untreated product. If treating on arrival product must pests need to be contained".</p> <p>It pointless treating the fruit then putting it in a pest loaded carton. These requirements can also guide for treating commodity's found infested on arrival.</p> <p><i>Category : SUBSTANTIVE</i></p>
293	154	The treatment facility should provide the necessary <u>adequate</u> measures to prevent possible infestation or <u>re-infestation or</u> contamination <u>or re-contamination</u> of the commodity after treatment. The following measures may be required:	<p><b>Ghana</b></p> <p><i>Category : SUBSTANTIVE</i></p>
294	154	The treatment facility should provide the necessary measures to prevent possible infestation or contamination of the commodity after treatment. The following measures may be required:	<p><b>Philippines</b> add: - packing facility should be placed adjacent to the treatment facility - additional preventive measures may be installed in the packing facility (eg. double doors, plastic and air curtains, insect traps) - packing the commodities in secured/insect-proof boxes</p>

#	Para	Text	Comment
			<i>Category : TECHNICAL</i>
295	155	keeping the commodity in a pest free enclosure <u>- packing facility may be placed adjacent to the treatment facility</u> <u>- additional preventive measures may be installed in the packing facility (eg. double doors, plastic and air curtains, insect traps)</u> <u>- packing the commodities in secured/insect-proof boxes</u>	<b>APPPC</b>  <b>Nepal</b> Support APPPC comments <b>China</b> China support to this APPPC comment. <b>Thailand</b> Thailand support this APPPC comment.  <b>Bangladesh</b> Bangladesh agree with APPPC comment. <b>Philippines</b> Philippines supports this APPPC Comment <b>Viet Nam</b> Vietnam support this APPPC comment. <i>Category : SUBSTANTIVE</i>
296	155	keeping the commodity in a pest free enclosure <u>- additional preventive measures may be installed in the packing facility (eg. double doors, plastic and air curtains, insect traps)</u> <u>- packing the commodities in secured/insect-proof boxes</u>	<b>Korea, Republic of</b>  <i>Category : SUBSTANTIVE</i>
297	156	packing <del>the commodity</del> <u>should be done</u> immediately after <del>treatment</del> <u>the commodity reaches room temperature.</u>	<b>Colombia</b> No es viable realizar el empaqueo de producto inmediatamente después de la implementación de tratamiento, debido a que las experiencias que se tienen con la aplicación del tratamiento con vapor caliente, al realizar el empaque inmediatamente después de tratamiento con lleva a la aparición de hongos contaminantes.  Colombia esta de acuerdo con lo aprobado en el Taller Regional para América Latina 2017.  <i>Category : SUBSTANTIVE</i>
298	156	packing the commodity immediately after <del>treatment</del> <u>treatment in a pest free area</u>	<b>New Zealand</b> concern that this is stressed <i>Category : TECHNICAL</i>
299	157	segregating and identifying treated commodities.  <u>- dispatching the commodity immediately after treatment</u>	<b>Peru</b> For consistency with draft standard for fumigation treatment <i>Category : TECHNICAL</i>
300	157	segregating and identifying treated commodities. <u>- dispatching the commodity immediately after treatment</u>	<b>Brazil</b> For consistency with draft standard for fumigation treatment <i>Category : TECHNICAL</i>
301	157	segregating and identifying treated commodities. <u>- dispatching the commodity immediately after treatment</u>	<b>Argentina</b> For consistency with draft standard for fumigation treatment <i>Category : TECHNICAL</i>



#	Para	Text	Comment
302	157	segregating and identifying treated commodities <del>- dispatching the commodity immediately after treatment.</del>	<b>European Union</b> See paragraph 175 of the draft standard on fumigation. Category : TECHNICAL
303	157	segregating and identifying treated commodities <del>- dispatching the commodity immediately after fumigation.</del>	<b>EPPO</b> See paragraph 175 of the draft standard on fumigation. Category : TECHNICAL
304	157	segregating and identifying treated commodities. <del>- dispatching the commodity immediately after treatment</del>	<b>Uruguay</b> For consistency with the draft standard on fumigation treatments. Category : TECHNICAL
305	157	segregating and identifying treated <del>commodities</del> <del>commodities</del> " - dispatching the commodity immediately after fumigation." -	<b>Nepal</b>  <b>Nepal</b> Support country comments Category : SUBSTANTIVE
306	157	segregating and identifying treated commodities.	<b>Nepal</b> Suggestion to add Category : SUBSTANTIVE
307	157	segregating and identifying treated commodities <del>- dispatching the commodity immediately after treatment.</del>	<b>COSAVE</b> For consistency with draft standard for fumigation treatment Category : TECHNICAL
308	158	<del>Specific procedures appropriate for each facility and commodity treatment should be approved by the NPPO of the exporting country or the country in which the facility is located.</del>	<b>European Union</b> This aspect is not required in this level of detail. Category : SUBSTANTIVE
309	158	<del>Specific procedures appropriate for each facility and commodity treatment should be approved by the NPPO of the exporting country or the country in which the facility is located.</del>	<b>EPPO</b> This aspect is not required in this level of detail Category : SUBSTANTIVE
310	160	Commodities may be labelled with treatment lot numbers or other features of identification <del>(e.g. locations of packing and the treatment facility, dates of packing and treatment)</del> allowing trace-back. The labels should be easily identifiable and placed on visible locations.	<b>Peru</b> Examples are not appropriate and do not apply to temperature treatment. Category : TECHNICAL
311	160	Commodities may be labelled with treatment lot numbers or other features of identification <del>(e.g. locations of packing and the treatment facility, dates of packing and treatment)</del> allowing trace-back. The labels should be easily identifiable and placed on visible locations.	<b>Brazil</b> Examples are not appropriate and do not apply to temperature treatment. Category : TECHNICAL
312	160	Commodities may be labelled with treatment lot numbers or other features of identification <del>(e.g. locations of packing and the treatment facility, dates of packing and treatment)</del> allowing trace-back. The labels should be easily identifiable and placed on visible locations.	<b>Argentina</b> Examples are not appropriate and do not apply to temperature treatment. Category : TECHNICAL
313	160	Commodities <del>may should</del> be labelled with treatment lot numbers or other	<b>Ghana</b>

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		features of identification (e.g. locations of packing and the treatment facility, dates of packing and treatment) allowing trace-back. The labels should be easily identifiable and placed on visible locations.	<i>Category : SUBSTANTIVE</i>
314	160	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. The labels should be easily identifiable and placed on visible locations.	<b>Cameroon</b> Nous pensons que le marquage ne doit pas être optionnel. Dans le cas de la NIMP15, il aide à aisément identifier les palettes qui ont bénéficié d'un traitement et simplifie la vérification de la conformité. Nous pensons qu'une marque à estampiller sur les cartons ou lors de produits traités pourrait servir d'élément d'appréciation de la conformité. <i>Category : TECHNICAL</i>
315	160	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 <del>trace-back</del> <a href="#">trace-back for non-compliance consignments</a> . The labels should be easily identifiable and placed on visible locations.	<b>United States of America</b> To clarify <i>Category : SUBSTANTIVE</i>
316	160	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. The labels should be easily identifiable and placed on visible locations.	<b>New Zealand</b> It should be made clear here that the labelling might relate to daton/pallet/container identifier to trace the application of treatments rather than apply specific labels indicating treatment. -industry comment. <i>Category : SUBSTANTIVE</i>
317	160	Commodities may be labelled with treatment lot numbers or other features of identification ( <del>e.g. locations of packing and the treatment facility, dates of packing and treatment</del> ) allowing trace-back. The labels should be easily identifiable and placed on visible locations.	<b>Uruguay</b> Examples are not appropriate and do not apply to temperature treatments <i>Category : TECHNICAL</i>
318	160	Commodities may be labelled with treatment lot numbers or other features of identification ( <del>e.g. locations of packing and the treatment facility, dates of packing and treatment</del> ) allowing trace-back. The labels should be easily identifiable and placed on visible locations.	<b>COSAVE</b> Examples are not appropriate and do not apply to temperature treatment. <i>Category : TECHNICAL</i>
319	162	The NPPO of the <del>exporting</del> country <a href="#">in which the temperature treatment is conducted</a> is responsible for monitoring and auditing the application of phytosanitary treatments and the facilities within which the treatments are conducted. Continuous supervision of treatments should not be necessary provided that there is a system for continuous temperature monitoring, and that treatment programmes are properly designed to ensure a high degree of system integrity for the facility, process and commodity in question. The monitoring and auditing should be sufficient to detect and correct deficiencies promptly.	<b>Peru</b> For consistency <i>Category : EDITORIAL</i>
320	162	The NPPO of the <del>exporting</del> country <a href="#">in which the temperature treatment is conducted</a> is responsible for monitoring and auditing the application of phytosanitary treatments and the facilities within which the treatments are	<b>Brazil</b> For consistency <i>Category : EDITORIAL</i>

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		conducted. Continuous supervision of treatments should not be necessary provided that there is a system for continuous temperature monitoring, and that treatment programmes are properly designed to ensure a high degree of system integrity for the facility, process and commodity in question. The monitoring and auditing should be sufficient to detect and correct deficiencies promptly.	
321	162	The NPPO of the <del>exporting</del> country <u>in which the temperature treatment is conducted is</u> responsible for monitoring and auditing the application of phytosanitary treatments and the facilities within which the treatments are conducted. Continuous supervision of treatments should not be necessary provided that there is a system for continuous temperature monitoring, and that treatment programmes are properly designed to ensure a high degree of system integrity for the facility, process and commodity in question. The monitoring and auditing should be sufficient to detect and correct deficiencies promptly.	<b>Argentina</b> For consistency <i>Category : EDITORIAL</i>
322	162	The NPPO of the exporting country is responsible for monitoring and auditing the application of phytosanitary treatments and the facilities within which the treatments are conducted. Continuous supervision of treatments should not be necessary provided that there is a system for continuous temperature monitoring, and that treatment programmes are properly designed to ensure a high degree of system <del>integrity</del> <u>efficacy and security</u> for the facility, process and commodity in question. The monitoring and auditing should be sufficient to detect and correct deficiencies promptly.	<b>European Union</b> The term "integrity" is obscure. <i>Category : EDITORIAL</i>
323	162	The NPPO of the exporting country is responsible for monitoring and auditing the application of phytosanitary treatments and the facilities within which the treatments are conducted. Continuous supervision of treatments should not be necessary provided that there is a system for continuous temperature monitoring, and that treatment programmes are properly designed to ensure a high degree of system <del>integrity</del> <u>efficacy and security</u> for the facility, process and commodity in question. The monitoring and auditing should be sufficient to detect and correct deficiencies promptly.	<b>EPP0</b> The term "integrity" is obscure. <i>Category : EDITORIAL</i>
324	162	The NPPO of the exporting country is responsible for monitoring and auditing the application of phytosanitary treatments and the facilities within which the treatments are conducted. Continuous supervision of treatments should not be necessary provided that there is a system for continuous temperature monitoring, and that treatment programmes are properly designed to ensure a high degree of system integrity for the facility, process and commodity in question. The monitoring and auditing should be sufficient to detect and correct deficiencies promptly.	<b>United States of America</b> Second sentence is long, consider revising <i>Category : EDITORIAL</i>

#	Para	Text	Comment
325	162	The NPPO of the <del>exporting</del> country <u>in which the temperature treatment is conducted is</u> responsible for monitoring and auditing the application of phytosanitary treatments and the facilities within which the treatments are conducted. Continuous supervision of treatments should not be necessary provided that there is a system for continuous temperature monitoring, and that treatment programmes are properly designed to ensure a high degree of system integrity for the facility, process and commodity in question. The monitoring and auditing should be sufficient to detect and correct deficiencies promptly.	<b>Uruguay</b> For consistency <i>Category : TECHNICAL</i>
326	162	The NPPO of the exporting country is responsible for monitoring and auditing the application of phytosanitary treatments and the facilities <del>within systems in</del> which the treatments are conducted. Continuous supervision of treatments should not be necessary provided that there is a system for continuous temperature monitoring, and that treatment programmes are properly designed to ensure a high degree of system integrity for the facility, process and commodity in question. The monitoring and auditing should be sufficient to detect and correct deficiencies promptly.	<b>Thailand</b> better clarification. <i>Category : EDITORIAL</i>
327	162	The NPPO of the <del>exporting</del> country <u>in which the treatment is conducted is</u> responsible for monitoring and auditing the application of phytosanitary treatments and the facilities within which the treatments are conducted. Continuous supervision of treatments should not be necessary provided that there is a system for continuous temperature monitoring, and that treatment programmes are properly designed to ensure a high degree of system integrity for the facility, process and commodity in question. The monitoring and auditing should be sufficient to detect and correct deficiencies promptly.	<b>COSAVE</b> For consistency <i>Category : EDITORIAL</i>
328	163	<b><u>5.5</u> Requirements for treatment facilities</b>	<b>APPPC</b>  <b>Nepal</b> Support APPPC comments <b>Thailand</b> Thailand support this APPPC comment.  <b>Korea, Republic of</b> Republic of Korea supports this APPPC comment. <b>Japan</b> Japan support regional comment. <b>Viet Nam</b> Vietnam support this APPPC comment. <i>Category : EDITORIAL</i>
329	163	<b><u>5.5</u> Requirements for treatment facilities</b>	<b>Peru</b>  <i>Category : EDITORIAL</i>

#	Para	Text	Comment
330	163	<a href="#">5.5</a> Requirements for treatment facilities	<b>Brazil</b> <i>Category : EDITORIAL</i>
331	163	<a href="#">5.5</a> Requirements for treatment facilities	<b>Argentina</b> <i>Category : EDITORIAL</i>
332	163	<a href="#">5.5</a> Requirements for treatment facilities	<b>European Union</b> The number of the section is missing. <i>Category : EDITORIAL</i>
333	163	<a href="#">5.5</a> Requirements for treatment facilities	<b>EPPO</b> The number of the section is missing. <i>Category : EDITORIAL</i>
334	163	<a href="#">5.5</a> Requirements for treatment facilities	<b>Uruguay</b> Editorial correction <i>Category : EDITORIAL</i>
335	163	<a href="#">5.5</a> Requirements for treatment facilities	<b>Japan</b> <i>Category : EDITORIAL</i>
336	163	<a href="#">5.5</a> Requirements for treatment facilities	<b>COSAVE</b> <i>Category : EDITORIAL</i>
337	166	authorization of <a href="#">entities-providers</a> (treatment company or person)	<b>Ozone Secretariat</b> There no definition in ISPM 5 for entities and its confusing <i>Category : EDITORIAL</i>
338	166	authorization of <a href="#">entities-treatment providers</a> (treatment company or person)	<b>New Zealand</b> Better alignment with language in ISPM 15 which uses "treatment provider". <i>Category : EDITORIAL</i>
339	167	<del>the monitoring programme to be administered by the NPPO of the country in which treatments are conducted</del>	<b>European Union</b> We prefer deleting this example as debatable and also for consistency with EU's proposal to delete the section 'Compliance agreement' in the draft ISPM on requirements for fumigation. <i>Category : SUBSTANTIVE</i>
340	167	<del>the monitoring programme to be administered by the NPPO of the country in which treatments are conducted</del>	<b>EPPO</b> EPPO prefers deleting this example as debatable and also for consistency with EPPO's proposal to delete the section 'Compliance agreement' in the draft ISPM on requirements for fumigation <i>Category : SUBSTANTIVE</i>
341	168	<del>audit provisions</del>	<b>European Union</b> 'audit provisions' is vague and not necessary here. <i>Category : SUBSTANTIVE</i>
342	168	<del>audit provisions</del>	<b>EPPO</b> 'audit provisions' is vague and not necessary here <i>Category : SUBSTANTIVE</i>
343	169	<del>free-access</del> <a href="#">for the NPPO of the country in which the facility is located</a> to documentation and records of the treatment facility	<b>European Union</b> 1) Useless word.  2) Important precision given (see paragraphs 165 and 172).

#	Para	Text	Comment
			For 1) and 2): changes consistent with the wording of the draft standard on fumigation. <i>Category : EDITORIAL</i>
344	169	<del>free</del> -access <u>for the NPPO of the country in which the facility is located</u> to documentation and records of the treatment facility	<b>EPPO</b> 1) Useless word.  2) Important precision given (see paragraphs 165 and 172).  For 1) and 2): changes consistent with the wording of the draft standard on fumigation. <i>Category : EDITORIAL</i>
345	169	<del>free</del> - <u>unrestricted</u> access to documentation and records of the treatment facility	<b>United States of America</b> "unrestricted" is more appropriate wording <i>Category : EDITORIAL</i>
346	172	The NPPO of the country in which the treatment facility is located is responsible for monitoring record keeping and documentation. This includes the raw data on temperature and humidity recorded during the treatment. This information should be available to concerned <del>parties</del> <u>parties at request</u> . Trace-back capability is essential.	<b>European Union</b> In consistency with other ISPMs. <i>Category : SUBSTANTIVE</i>
347	172	The NPPO of the country in which the treatment facility is located is responsible for <del>monitoring record keeping and documentation. This includes the ensuring that treatment providers keep appropriate records, such as</del> raw data on temperature and humidity recorded during the treatment. <del>This information should be available to concerned parties. Trace-back capability</del> <u>Accurate record keeping is essential</u> to allow for trace-back capability.	<b>European Union</b> NPPO should not collect all the information. It should have the access or possibility to get it or check it if needed. It should be consistent with 6.2.first paragraph.  Sentence on availability of information deleted as covered by para 169.  Final sentence improved. <i>Category : SUBSTANTIVE</i>
348	172	The NPPO of the country in which the treatment facility is located is responsible for <del>monitoring record keeping and documentation. This includes the ensuring that treatment providers keep appropriate records, such as</del> raw data on temperature and humidity recorded during the treatment. <del>This information should be available to concerned parties</del> <u>Accurate record keeping is essential</u> to <del>concerned parties</del> allow for trace-back capability. <del>Trace-back capability is essential.</del>	<b>EPPO</b> NPPO should not collect all the information. It should have the access or possibility to get it or check it if needed. It should be consistent with 6.2.first paragraph.  Sentence on availability of information deleted as covered by para 169.  Final sentence improved <i>Category : SUBSTANTIVE</i>
349	172	The NPPO of the country in which the treatment facility is located is responsible for <del>monitoring record keeping</del> <u>maintaining records</u> and <del>documentation</del> <u>documentation of each and every treatment</u> . This includes the raw data on temperature and humidity recorded during the treatment. This information should be available to concerned parties. Trace-back capability is essential.	<b>United States of America</b> Suggested addition <i>Category : TECHNICAL</i>
350	173	<b>6.1</b> <u>Temperature mapping procedures</u> <del>Documentation of</del>	<b>Panama</b>

#	Para	Text	Comment
		<del>procedures</del>	Se solicita incorporar "mapeo de temperatura" (temperature mapping) debido a que frecuentemente es mencionado en el cuerpo de la presente norma. <i>Category : SUBSTANTIVE</i>
351	173	<b>6.1 Documentation of procedures</b>	<b>OIRSA</b> Incorporate "temperature mapping" because it is frequently mentioned in the body of this Draft ISPM. <i>Category : SUBSTANTIVE</i>
352	174	Procedures should be documented to ensure that commodities are consistently treated, as required. Process controls and operational parameters should be established to provide the details necessary for a specific approval of a treatment facility. Calibration and quality control procedures should be documented by the treatment facility operator. As a minimum, <del>a written procedure</del> <u>they</u> should address the following:	<b>European Union</b> It is confusing to read "written procedure" and the meaning is not clear. <i>Category : SUBSTANTIVE</i>
353	174	Procedures should be documented to ensure that commodities are consistently treated, as required. Process controls and operational parameters should be established to provide the details necessary for a specific approval of a treatment facility. Calibration and quality control procedures should be documented by the treatment facility operator. As a minimum, <del>a written procedure</del> <u>they</u> should address the following:	<b>EPPO</b> It is confusing to read "written procedure" and the meaning is not clear. <i>Category : SUBSTANTIVE</i>
354	178	<del>temperature calibration and recording and, where appropriate, humidity calibration and recording</del> <u>Calibration of Equipment</u>	<b>Singapore</b> Calibration of equipment is a more appropriate term instead of temperature calibration and etc. <i>Category : EDITORIAL</i>
355	179	contingency plans and corrective actions to be taken in the event of treatment failure or problems with critical treatment <del>processes</del> <u>processes . staff training" as in Fumigation</u>	<b>Nepal</b> Support country comments <i>Category : EDITORIAL</i>
356	179	contingency plans and corrective actions to be taken in the event of treatment failure or problems with critical treatment processes	<b>Nepal</b> What about to add more one point Staff training after contingency plans <i>Category : EDITORIAL</i>
357	181	labelling (if required), record keeping and documentation requirements.  <u>- training</u>	<b>Korea, Republic of</b> <i>Category : SUBSTANTIVE</i>
358	182	<b>6.2 Record keeping</b>	<b>Ozone Secretariat</b> Additional proposed text: "Temperature, humidity (if required) and time recorded".  It is essential for audit purposes that the temperature and time records are available to be verified. <i>Category : SUBSTANTIVE</i>
359	183	Treatment facility operators should keep records for each treatment application. These records should be made available to the NPPO <del>when</del> <u>at all available</u>	<b>Ghana</b> <i>Category : SUBSTANTIVE</i>

#	Para	Text	Comment
		<u>times when requested</u> , for example, <u>verifying a trace-back is necessary</u> <u>trace-back</u> .	
360	183	Treatment facility operators should keep records for each treatment <u>application</u> <u>application (e.g. date, time and temperature and humidity data of treatment)</u> . These records should be made available to the NPPO when, for example, a trace-back is necessary.	<b>Japan</b> These records are minimum required information to enable the trace-back. <i>Category : TECHNICAL</i>
361	184	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. Information that may be required to be recorded includes:	<b>OIRSA</b> Include: calibration record of equipment. <i>Category : TECHNICAL</i>
362	186	commodity treated <u>- Treatment type</u> <u>- Treatment lot number</u> <u>- Equipment calibration records</u>	<b>Panama</b> La información que se recomienda adicionar es de utilidad para la trazabilidad del producto. El párrafo 160 indica: Commodities may be labelled with treatment lot numbers.....allowing trace-back. La información de las calibraciones es fundamental, ya que se emplearán equipos de medición determinar la temperatura y humedad. El párrafo 90 señala: "The equipment should be evaluated for accuracy and consistency for the temperature, humidity and duration of treatment". (Ver también párrafos 174, 178, 230, 241)  <i>Category : TECHNICAL</i>
363	191	date of treatment <u>- temperature and humidity data of each treatment</u>	<b>APPPC</b>  <b>Nepal</b> Support APPPC comments <b>China</b> China support to this APPPC comment. <b>Thailand</b> Thailand support this APPPC comment.  <b>Korea, Republic of</b> Republic of Korea supports this APPPC comment. <b>Viet Nam</b> Vietnam support this APPPC comment. <i>Category : SUBSTANTIVE</i>
364	191	date of treatment <u>- Temperature, humidity (if required) and time recorded</u>	<b>New Zealand</b> It is essential for audit purposes that the temperature and time records are available to be verified. <i>Category : TECHNICAL</i>
365	192	any observed deviation from the treatment schedule: <u>Fumigation</u>	<b>Nepal</b> Some more points are there in Fumigation which may be relevant here as well. <i>Category : EDITORIAL</i>
366	194	All NPPO procedures should be appropriately documented and records,	<b>European Union</b> For coherence with many other ISPMs.



#	Para	Text	Comment
		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 <a href="#">upon request</a> as described in ISPM 13 ( <i>Guidelines for the notification of non-compliance and emergency action</i> ).	<i>Category : SUBSTANTIVE</i>
367	194	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 <a href="#">upon request</a> as described in ISPM 13 ( <i>Guidelines for the notification of non-compliance and emergency action</i> ).	<b>EPPO</b> For coherence with many other ISPMs <i>Category : SUBSTANTIVE</i>
368	196	<b>7.1</b> <b>Inspection</b>	<b>European Union</b> Unnecessary. <i>Category : EDITORIAL</i>
369	196	<b>7.1</b> <b>Inspection</b>	<b>EPPO</b> Unnecessary <i>Category : EDITORIAL</i>
370	197	Inspection is carried out to determine compliance with phytosanitary import requirements. Where live non-target pests are found after treatment, the NPPO should consider if their survival would indicate a treatment failure. <a href="#">NPPO may also need to consider if infestation has occurred with regards to treatment failure.</a>	<b>APPPC</b> This section needs to be expanded to provide guidance to NPPOs on when a treatment failure may have occurred after inspection i.e live target pests, reinfestation etc. <b>Nepal</b> Support APPPC comments <b>China</b> China support to this APPPC comment. <b>Korea, Republic of</b> Republic of Korea supports this APPPC comment. <b>Bangladesh</b> Bangladesh agree with APPPC comment. <b>Philippines</b> Philippines supports this APPPC comment <b>Japan</b> Japan support regional comment. <b>Malaysia</b> Malaysia agreed with APPPC <b>Viet Nam</b> Vietnam support this APPPC comment. <i>Category : SUBSTANTIVE</i>
371	197	Inspection is carried out to determine compliance with phytosanitary import requirements. <a href="#">Required treatment effects should not necessary be expected on non-target pests.</a> Where live non-target pests are found after treatment, the NPPO should consider if their survival would indicate a treatment failure.	<b>Peru</b> Text added to clarify and also for consistency with the draft standard on fumigation <i>Category : TECHNICAL</i>
372	197	Inspection is carried out to determine compliance with phytosanitary import	<b>Kenya</b> What happens if it is found that the live non target pests are important and

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		requirements. Where live non-target pests are found after treatment, the NPPO should consider if their survival would indicate a <del>treatment failure</del> <u>treatment failure. (What happens if it is found that the live non target pests are important and require treatment. Proposal; conduct inspection prior to decision on fumigant to be used, so that pests are expected post inspection if the treatment was done correctly.)</u>	require treatment. Proposal; conduct inspection prior to decision on fumigant to be used, so that pests are expected post inspection if the treatment was done correctly. <i>Category : TECHNICAL</i>
373	197	Inspection is carried out to determine compliance with phytosanitary import requirements. <u>Required treatment effects should not necessary be expected on non-target pests.</u> Where live non-target pests are found after treatment, the NPPO should consider if their survival would indicate a treatment failure.	<b>Brazil</b> Text added to clarify and also for consistency with the draft standard on fumigation <i>Category : TECHNICAL</i>
374	197	Inspection is carried out to determine compliance with phytosanitary import requirements. <u>Required treatment effects should not necessary be expected on non-target pests.</u> Where live non-target pests are found after treatment, the NPPO should consider if their survival would indicate a treatment failure.	<b>Argentina</b> Text added to clarify and also for consistency with the draft standard on fumigation <i>Category : TECHNICAL</i>
375	197	Inspection <del>is-should be</del> carried out <u>by the NPPO of the exporting country and may also be carried out by the NPPO of the importing country</u> to determine compliance with phytosanitary import requirements. Where live non-target pests are found after treatment, the NPPO should consider if their survival would indicate a treatment failure.	<b>European Union</b> To state the appropriate level of obligation. <i>Category : TECHNICAL</i>
376	197	Inspection is carried out to determine compliance with phytosanitary import requirements. Where live <del>non-target-target</del> pests are found after treatment, the NPPO should consider if their survival would indicate a treatment failure, <u>infestation after treatment or other factors.</u>	<b>Japan</b> Determination if the treatment is successful should be judged from survival of targeted pests. Even though live target pest is detected, the cause of the detection is not always failure of treatment. There is the possibility of infestation after treatment or fraudulent activities. <i>Category : SUBSTANTIVE</i>
377	197	Inspection <del>is-should be</del> carried out <u>by the NPPO of the exporting country and may be carried out by the NPPO of the importing country</u> to determine compliance with phytosanitary import requirements. Where live non-target pests are found after treatment, the NPPO should consider if their survival would indicate a treatment failure.	<b>EPPO</b> To state the appropriate level of obligation <i>Category : TECHNICAL</i>
378	197	Inspection is carried out to determine compliance with phytosanitary import requirements. Where live non-target <u>regulated</u> pests are found after treatment, the NPPO should <del>consider if their survival would indicate a</del> <u>determine whether additional treatment failure is necessary.</u>	<b>United States of America</b> More appropriate wording <i>Category : SUBSTANTIVE</i>
379	197	Inspection is carried out to determine compliance with phytosanitary import requirements. Where live <del>non-target-target</del> pests are found after treatment, the NPPO should consider if their survival would indicate a treatment failure.	<b>Japan</b> Success or failure of the treatment should be determined by the life or death of the target pests. <b>Thailand</b> Thailand would like to support this comment by Japan.

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			<i>Category : SUBSTANTIVE</i>
380	197	Inspection is carried out to determine compliance with phytosanitary import requirements. <u>Required treatment effects should not necessarily be expected on non-target pests.</u> Where live non-target pests are found after treatment, the NPPO should consider if their survival would indicate a treatment failure.	<b>Uruguay</b> Text added to clarify and also for consistency with the draft standard on fumigation <i>Category : TECHNICAL</i>
381	197	Inspection is carried out to determine compliance with phytosanitary import requirements. Where live non-target pests are found after treatment, the NPPO should consider if their survival would indicate a treatment <del>failure</del> <u>failure or reinfestation.</u>	<b>Philippines</b> <i>Category : SUBSTANTIVE</i>
382	197	Inspection is carried out to determine compliance with phytosanitary import requirements. <u>Require treatment effects should not be necessarily be expected on non-target pest.</u> Where live non-target pests are found after treatment, the NPPO should consider if their survival would indicate a treatment failure.	<b>COSAVE</b> To clarify and consistency with draft standard of fumigation. <i>Category : TECHNICAL</i>
383	198	The NPPO of the importing country should inspect documentation and records for treatments conducted during transport to determine compliance with <u>phytosanitary</u> import requirements.	<b>Peru</b> Glossary term <i>Category : TECHNICAL</i>
384	198	The NPPO of the importing country should inspect documentation and records for treatments conducted during transport to determine compliance with <u>phytosanitary</u> import requirements.	<b>Brazil</b> Glossary term <i>Category : TECHNICAL</i>
385	198	The NPPO of the importing country should inspect documentation and records for treatments conducted during transport to determine compliance with <u>phytosanitary</u> import requirements.	<b>Argentina</b> Glossary term <i>Category : TECHNICAL</i>
386	198	The NPPO of the importing country <del>should</del> <u>may</u> inspect documentation and records for treatments conducted during transport to determine compliance with import requirements.	<b>European Union</b> Correct level of obligation. <i>Category : TECHNICAL</i>
387	198	The NPPO of the importing country <del>should</del> <u>may</u> inspect documentation and records for treatments conducted during transport to determine compliance with import requirements.	<b>EPP0</b> correct level of obligation <i>Category : TECHNICAL</i>
388	198	The NPPO of the importing country should inspect documentation and records for treatments conducted <u>off-shore or</u> during transport to determine compliance with import requirements.	<b>United States of America</b> More correct language <i>Category : TECHNICAL</i>
389	198	The NPPO of the importing country should inspect documentation and records for treatments conducted during transport to determine compliance with <u>phytosanitary</u> import requirements.	<b>Uruguay</b> Use a Glossary term <i>Category : TECHNICAL</i>
390	198	The NPPO of the importing country should inspect documentation and records for treatments conducted during transport to determine compliance with <u>phytosanitary</u> import requirements.	<b>COSAVE</b> Glossary term <i>Category : TECHNICAL</i>

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391	199	<b>7.2</b> <b>Phytosanitary certification</b>	<b>European Union</b> We propose to delete this section for coherence with the draft standard on Fumigation requirements and as this is dealt with by ISPM 12. <i>Category : TECHNICAL</i>
392	199	<b>7.2</b> <b>Phytosanitary certification</b>	<b>EPP0</b> We propose to delete this section for coherence with the draft standard on Fumigation requirements and as this is dealt by ISPM 12 <i>Category : EDITORIAL</i>
393	200	<del>The phytosanitary certificate 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 authorized by the NPPO.</del>	<b>European Union</b> We propose to delete this section for coherence with the draft standard on Fumigation requirements and as this is dealt with by ISPM 12. <i>Category : TECHNICAL</i>
394	200	<del>The phytosanitary certificate 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 authorized by the NPPO.</del>	<b>EPP0</b> We propose to delete this section for coherence with the draft standard on Fumigation requirements and as this is dealt by ISPM 12 <i>Category : TECHNICAL</i>
395	200	The phytosanitary certificate 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 authorized by the NPPO.	<b>New Zealand</b> industry comment - this might be difficult at times when in-transit cold treatment is used. Maybe some words could be found to cover this possibility... <i>Category : SUBSTANTIVE</i>
396	201	<b>8.</b> <b>AuthorityResponsibilities</b>	<b>European Union</b> Title more appropriate for this section. <i>Category : TECHNICAL</i>
397	201	<b>8.</b> <b>Responsibilities Authority</b>	<b>EPP0</b> Title more appropriate for this section <i>Category : TECHNICAL</i>
398	202	The NPPO of the country in which the temperature treatment is conducted or initiated is responsible for the evaluation, approval and monitoring of the application of temperature treatments as phytosanitary measures, including those performed by other authorized entities. However, <u>in some cases</u> when treatments are conducted or completed during transport, the NPPO of the exporting country <u>is-may be</u> responsible for authorizing the entity applying the treatment during transport, and the NPPO of the importing country is responsible for verifying if the treatment requirements have been met.	<b>United States of America</b> To clarify <i>Category : SUBSTANTIVE</i>
399	204	<b>APPENDIX 1: Guidance for temperature treatment efficacy studies</b>	<b>Ozone Secretariat</b> Remove. Appendix 1 should be in ISPM 28 not in the application standard. <i>Category : SUBSTANTIVE</i>
400	204	<b>APPENDIX 1: Guidance for temperature treatment efficacy studies</b>	<b>European Union</b> The appendices of this draft standard and of the draft standard on fumigation should be more consistent in their structure and in their wording, and they should not be redundant with information given in ISPM 28. The information

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			common to all types of treatments should be given in ISPM 28, through its revision if necessary. <i>Category : SUBSTANTIVE</i>
401	204	<b>APPENDIX 1: Guidance for temperature treatment efficacy studies</b>	<b>EPP0</b> The appendices of this draft standard and of the draft standard on fumigation should be more consistent in their structure and in their wording, and they should not be redundant with information given in ISPM 28. The information common to all types of treatments should be given in ISPM 28, through its revision if necessary. <i>Category : SUBSTANTIVE</i>
402	204	<b>APPENDIX 1: Guidance for temperature treatment efficacy studies</b>	<b>United States of America</b> This is a repetition of ISPM 28. Suggest deleting the appendix and referring to ISPM 28 instead. See United States comment in paragraph 53 <i>Category : SUBSTANTIVE</i>
403	204	<b>APPENDIX 1: Guidance for temperature treatment efficacy studies</b>	<b>Panama</b> Se solicita retirar el apéndice 1 y sea trasladado como un apéndice de la NIMF No. 28; ya que la presente norma habla de uso de temperatura como tratamiento fitosanitario y no de estudios de eficacia. <i>Category : SUBSTANTIVE</i>
404	204	<b>APPENDIX 1: Guidance for temperature treatment efficacy studies</b>	<b>Uruguay</b> Appendix 1 should be deleted (see general comment) <i>Category : SUBSTANTIVE</i>
405	204	<b>APPENDIX 1: Guidance for temperature treatment efficacy studies</b>	<b>OIRSA</b> Transfer Appendix 1; As an appendix to ISPM No. 28; Since this draft talks about the use of temperature as a phytosanitary treatment and not of efficacy studies. <i>Category : SUBSTANTIVE</i>
406	205	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 requirements for submitting data for the evaluation of phytosanitary treatments. If the research is done as a response to a request for market access, the research protocol should be discussed with the importing country before initiating the research. The mortality level to be achieved should be specified, at a stated confidence level.	<b>European Union</b> The idea in the last sentence is not clear. It is confusing what is meant by that. A clearer wording is needed. <i>Category : TECHNICAL</i>
407	213	Developmental studies, small-scale temperature–time response research and large-scale confirmatory <b>trials tests</b> 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 temperature–time 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.	<b>China</b> “large-scale confirmatory tests”. The phrase of “large-scale confirmatory tests” has been used in ISPM 18. <i>Category : EDITORIAL</i>
408	215	The host commodity should be infested with the pest in a manner consistent with that which occurs naturally when subjected to treatment application during	<b>EPP0</b> The idea in the last sentence is not clear. It is confusing what is meant by that. A clearer wording is needed.

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		trade. 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.	<i>Category : TECHNICAL</i>
409	217	<b>3. Experimental Design</b>	<p><b>European Union</b> This section needs more consistent wording and also improved consistency between the two Standards. E.g.:</p> <p>1) More information is given in the draft standard on fumigation for example on the principles of the two confirmatory methods.</p> <p>2) The terminology used is different in the appendices of the two draft standards. For example "developmental studies" and "small-scale experiments" seem to be named "preliminary tests" in appendix 1 of the draft standard on fumigation, and "large-scale confirmatory trials" and "small-scale temperature-time response trials" are named "large-scale (confirmatory) tests" and "extrapolation (confirmatory) tests" in appendix 1 of the draft fumigation standard.</p> <p><i>Category : SUBSTANTIVE</i></p>
410	217	<b>3. Experimental Design</b>	<p><b>EPP0</b> This section needs more consistent wording and also improved consistency between the two Standards. E.g.</p> <p>1) More information is given in the draft standard on fumigation for example on the principles of the two confirmatory methods.</p> <p>2) The terminology used is different in the appendices of the two draft standards. For example "developmental studies" and "small-scale experiments" seem to be named "preliminary tests" in appendix 1 of the draft standard on fumigation, and "large-scale confirmatory trials" and "small-scale temperature-time response trials" are named "large-scale (confirmatory) tests" and "extrapolation (confirmatory) tests" in appendix 1 of the draft fumigation standard.</p> <p><i>Category : SUBSTANTIVE</i></p>
411	218	Treatment efficacy studies may include developmental studies, small-scale temperature–time response research or large-scale confirmatory <del>trial</del> tests, as required.	<p><b>Viet Nam</b> <i>Category : EDITORIAL</i></p>
412	218	Treatment efficacy studies may include developmental studies, small-scale temperature–time response research or large-scale confirmatory <del>trial</del> tests, as required.	<p><b>China</b> "large-scale confirmatory tests". The phrase of "large-scale confirmatory tests" has been used in ISPM 18. <i>Category : EDITORIAL</i></p>
413	223	the relative level of tolerance of the target pest to the treatment compared with another pest for which sufficient efficacy has already been demonstrated <del>under</del>	<p><b>Japan</b> editorial <i>Category : EDITORIAL</i></p>

#	Para	Text	Comment
		<a href="#">the same condition</a> (if the target pest is less tolerant to the treatment than the other pest, no further work need be undertaken).	
414	224	Large-scale confirmatory <del>trials-tests</del> 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 efficacy without causing economically significant levels of damage to the commodity (e.g. without compromising quality standards).	<b>Viet Nam</b> <i>Category : EDITORIAL</i>
415	224	Large-scale confirmatory trials or small-scale temperature–time response trials (for later statistical regression <del>analysis-analysis</del> ), <a href="#">probit - 9</a> , should then be completed on the temperature most likely to achieve the desired efficacy without causing economically significant levels of damage to the commodity (e.g. without compromising quality standards).	<b>Colombia</b> En los trabajos que se han realizado con tratamientos la aplicación de probirt 9 ha presentado mayor nivel de confianza. La regresión no esta tan difundida en estos tratamientos. Puede servir como un complemento. <i>Category : SUBSTANTIVE</i>
416	224	Large-scale confirmatory <del>trials-tests</del> 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 efficacy without causing economically significant levels of damage to the commodity (e.g. without compromising quality standards).	<b>China</b> "large-scale confirmatory tests". The phrase of "large-scale confirmatory tests" has been used in ISPM 18. <i>Category : EDITORIAL</i>
417	226	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 do not affect pest survival. Countries may have specific requirements regarding the proportion of insects that may die in the control for the control to be deemed valid, because high mortality in the control may be variable and would mean that control mortality could not be separated from the effects of the treatment.	<b>APPPC</b> To provide the rationale for the "no less than one tenth" in paragraph. <b>Nepal</b> Support APPPC comments <b>Thailand</b> Thailand support this APPPC comment.  <b>Bangladesh</b> Bangladesh agree with APPPC comment. <b>Japan</b> Japan support regional comment. <b>Malaysia</b> Malaysia agreed with APPPC <b>Viet Nam</b> Vietnam support this APPPC comment. <i>Category : TECHNICAL</i>
418	226	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 do not affect pest survival. Countries may have specific requirements regarding the proportion of insects that may die in the control for the control to be deemed valid, because high mortality in the control <del>may be variable and</del> would mean that control mortality could not be separated from the effects of the treatment.	<b>European Union</b> Clearer. <i>Category : EDITORIAL</i>
419	226	Untreated controls are also necessary, with one control per replicate being	<b>Japan</b>

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		optimal. <del>Untreated</del> The size of untreated controls should be <del>no less than one-tenth of decided depending on</del> the size of the treated population, and they should be held in conditions that do not affect pest survival. Countries may have specific requirements regarding the proportion of <del>insects the pests</del> that may die in the control for the control to be deemed valid, because high mortality in the control may be variable and would mean that control mortality could not be separated from the effects of the treatment.	-The size of untreated control should be determined statistically according to the size of treated. No less than one tenth should be deleted if there is no technical justification to support it. -editorial Category : <i>SUBSTANTIVE</i>
420	226	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 do not affect pest survival. Countries may have specific requirements regarding the proportion of insects that may die in the control for the control to be deemed valid, because high mortality in the control <del>may be variable and</del> would mean that control mortality could not be separated from the effects of the treatment.	<b>EPP0</b> Clearer. Category : <i>EDITORIAL</i>
421	229	The facilities and equipment used should ensure adequate control of the <del>environmental ambient</del> conditions during treatment, and be equivalent or similar to those likely to be used in trade.	<b>European Union</b> 'Ambient' seems to be the intended meaning. Category : <i>EDITORIAL</i>
422	229	The facilities and equipment used should ensure adequate control of the <del>environmental ambient</del> conditions during treatment, and be equivalent or similar to those likely to be used in trade.	<b>EPP0</b> 'Ambient' seems to be the intended meaning Category : <i>EDITORIAL</i>
423	230	Treatment monitoring equipment should be able to monitor the temperature of the commodity or the facility with a stated accuracy and frequency over the duration of the treatment, <del>determined by the importing country</del> . The equipment should be calibrated prior to each trial. The temperatures measured should be that of 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.	<b>European Union</b> Not relevant. Category : <i>SUBSTANTIVE</i>
424	230	Treatment monitoring equipment should be able to monitor the temperature of the commodity or the facility with a stated accuracy and frequency over the duration of the treatment, determined by the importing country. The equipment should be calibrated prior to each trial. The temperatures measured should be that of the commodity close to the pest (where the pest is), <del>or and</del> the coolest (for heat treatment) or warmest (for cold treatment) part of the commodity.	<b>Japan</b> It should consider both the commodity close to the pest and the coolest/warmest part of the commodity. Category : <i>TECHNICAL</i>
425	230	Treatment monitoring equipment should be able to monitor the temperature of the commodity or the facility with a stated accuracy and frequency over the duration of the treatment, <del>determined by the importing country</del> . The equipment should be calibrated prior to each trial. The temperatures measured should be that of the commodity close to the pest (where the pest is), or the coolest (for	<b>EPP0</b> Not relevant. Category : <i>SUBSTANTIVE</i>



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		heat treatment) or warmest (for cold treatment) part of the commodity.	
426	234	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 $\leq 5\%$ need not be corrected, control mortality of $\geq 10\%$ must be explained. Results will not be considered to support treatments where control mortality is $\geq 20\%$ unless this is shown to be normal for the target pest under optimal conditions for survival.	<b>European Union</b> This paragraph is not fully consistent with the last sentence of paragraph 241 of the draft standard on fumigation. <i>Category : SUBSTANTIVE</i>
427	234	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 $\leq 5\%$ need not be corrected, control mortality of $\geq 10\%$ must be explained. Results will not be considered to support treatments where control mortality is $\geq 20\%$ unless this is shown to be normal for the target pest under optimal conditions for survival.	<b>Cameroon</b> Comme indiqué dans les autres commentaires, il est nécessaire de préparer un guide pour aider la mise en oeuvre d cette NIMP avant son adoption ou éventuellement dans un futur immédiat après adoption. Une exeple détaillé sur l'utilistion de cette techiue incuant les facteurs de correction est nécessaire. <i>Category : TECHNICAL</i>
428	234	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 $\leq 5\%$ need not be corrected, control mortality of $\geq 10\%$ must be explained. Results will not be considered to support treatments where control mortality is $\geq 20\%$ unless this is shown to be normal for the target pest under optimal conditions for survival.	<b>EPPO</b> This paragraph is not fully consistent with the last sentence of paragraph 241 of the draft standard on fumigation. <i>Category : SUBSTANTIVE</i>