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COMMISSION ON PHYTOSANITARY MEASURES

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**Adoption of International Standards for Phytosanitary Measures
- Ink amendments to adopted international standards for phytosanitary
measures (ISPMs)**

Agenda item 9.2

Prepared by the IPPC Secretariat

I. Introduction

1. Ink amendments are proposed as a result of consistency reviews of adopted standards. The agreed process of incorporating ink amendments by the CPM is to expedite minor adjustments and should only be for technical improvements, not for editorial changes. Editorial changes and errors should be brought to the attention of the Secretariat, who will archive them for future revisions of the relevant standard.
2. CPM-11 (2016) noted the process for translating and incorporating ink amendments previously noted in English to the other FAO official language versions of ISPMs. This decision entails the translation of ink amendments and their incorporation into the other FAO official language versions of ISPMs. Nevertheless, this work is done only as financial resources are identified.

II. Proposed ink amendments

A. Annexes to ISPM 28 (*Phytosanitary treatments for regulated pests*): irradiation treatments for tephritid fruit flies - Modified atmosphere usage in irradiation treatments

1. The IPPC Technical Panel on Phytosanitary Treatments (TPPT) discussed the effects of low oxygen on irradiation efficacy at their meeting in July 2019¹, considering that almost all currently adopted phytosanitary treatments (PTs) for irradiation treatments² contain the following disclaimer: “This irradiation treatment should not be applied to fruits and vegetables stored in modified atmospheres.”. The only exception is PT 11 (*Irradiation treatment for Grapholita molesta under hypoxia*) as the supporting study has tested the treatment in low oxygen environment.
2. When drafting the first irradiation treatments, more than 10 years ago, the TPPT decided to include a limitation, as the studies available at the time (Hallman 2001, 2004a, b)³ indicated that irradiation under low-oxygen conditions might reduce the efficacy of the treatment.
3. Multiple studies have shown a loss of irradiation treatment efficacy at very low oxygen levels (near 0%), and it is agreed that very low oxygen during irradiation should not be allowed. However it was proposed that as fruit flies have been well studied at moderate oxygen levels and oxygen levels of 5-7% or higher did not cause a loss of irradiation treatment efficacy in the studied fruit flies this caveat may be removed (Hallman, 2004a, b; Follett *et al.*, 2013; Srimartpirom *et al.*, 2018; Follett *et al.*, 2018)⁴.
4. The TPPT reviewed the preliminary results of a FAO/IAEA/USDA Project on Phytosanitary Treatments in which research was carried out regarding the effect of low oxygen storage on efficacy of phytosanitary irradiation against Tephritid fruit flies. In laboratory trials, no difference in survival of

1 2019-07 TPPT Meeting Report (Vienna, Austria): <https://www.ippc.int/en/publications/87681/>

2 Adopted ISPMs: <https://www.ippc.int/en/core-activities/standards-setting/ispms/>

3 Hallman, G J. 2001b. Irradiation as a Quarantine Treatment. In: R. Molins (ed) Food Irradiation: Principles and Applications. Wiley Interscience, New York, pp. 113-130.
Hallman, G.J. 2004a. Irradiation Disinfestation of Apple Maggot (Diptera: Tephritidae) in Hypoxic and Low-Temperature Storage. *Journal of Economic Entomology*, 97(4), 1245-8.

Hallman, G.J. 2004b. Ionizing irradiation quarantine treatment against Oriental fruit moth (Lepidoptera: Tortricidae) in ambient and hypoxic atmospheres. *Journal of Economic Entomology*, 97: 824–827.

4 Follett, P A, Wall M, and Bailey W, 2013. Influence of modified atmosphere packaging on radiation tolerance in the phytosanitary pest melon fly (Diptera: Tephritidae). *J. Econ. Entomol.*, 106 (5): 2020–2026.

Srimartpirom M, Burikam I, Limohpasmanee W, Kongratarporn T, Thannarin T, Bunsiri A, and Follett PA. 2018. Low-Dose Irradiation With Modified Atmosphere Packaging for Mango Against the Oriental Fruit Fly (Diptera: Tephritidae). *Journal of Economic Entomology* 111(1): 135 – 140.

Follett P A., Swedman A, and Mackey B. 2018. Effect of Low-Oxygen Conditions Created by Modified Atmosphere Packaging on Radiation Tolerance in *Drosophila suzukii* (Diptera: Drosophilidae) in Sweet Cherries. *Journal of Economic Entomology* 111(1): 141 – 145.

four Tephritid fruit fly species was found when stored in low oxygen before and during irradiation. The result of this study is also published in a peer-reviewed journal⁵, providing technical justification.

5. The TPPT recommended the removal of the restriction for Tephritid fruit fly species and noted that there is information available of trials that resulted in 5% survival of *Grapholita molesta* treated under hypoxia and thus the restriction would need to be further considered for other insect group, such as the Lepidoptera.

6. The Standards Committee (SC) agreed based on the TPPTs recommendation, to present to the CPM-15 (2021) as ink amendments the removal of the disclaimer “This irradiation treatment should not be applied to fruits and vegetables stored in modified atmospheres.” from irradiation treatments for Tephritid fruit flies concerning the adopted Annexes to ISPM 28 (*Phytosanitary treatments for regulated pests*) listed in the decision point (1) below.

7. The ink amendments are presented in Attachment 01 to this paper (*in English*).

B. Ink Amendments to adopted ISPMs: use of “commodity class” and its derivatives

8. The term “commodity class” (2015-013) was added to the *List of topics for IPPC standards* by the Standards Committee (SC) in November 2015, because difficulties related to the understanding of its Glossary definition had been identified. The SC asked the Technical Panel for the Glossary (TPG) to review this term in light of the discussions on the concept of a commodity standard and commodity classes within the context of ePhyto and consider deletion.

9. In December 2016, the TPG discussed the term “commodity class”. They felt that the definition for “commodity class” was not useful and that it might be suitable to delete it from the Glossary. The TPG agreed to analyze how the term had been used in standards and suggested that the various Glossary terms defining different commodity classes also be reviewed to determine if their definitions added value or rather created difficulties.

10. In May 2017, the SC confirmed that the TPG should consider the term “commodity class” (2015-013) and its possible deletion.

11. In their December 2017 meeting, the TPG discussed the term “commodity class” as well as other Glossary terms defining different commodity classes. “Commodity class” is used as a qualifier in several Glossary terms (e.g. “seeds (as a commodity class)”) and is used in several adopted ISPMs. Ink amendments to adopted ISPMs removing “commodity class” could be easily applied without affecting the meaning of those standards.

12. In December 2018, the TPG had reviewed the use of “commodity class” (2018-004) in ISPMs, as a consequence of the prospective deletion of the term and definition from the Glossary. The TPG had proposed ink amendments deleting “commodity class” or replacing it with “commodity” (2018-002) in adopted ISPMs⁶.

13. In May 2019, the SC *reviewed and approved* the ink amendments for “commodity class” as proposed by the TPG, and agreed to present them to CPM-15 (2021).

⁵ Dias, V.S.; Hallman, G.J.; Martínez-Barrera, O.Y.; Hurtado, N.V.; Cardoso, A.A.S.; Parker, A.G.; Caravantes, L.A.; Rivera, C.; Araújo, A.S.; Maxwell, F.; Cáceres-Barrios, C.E.; Vreysen, M.J.B.; Myers, S.W. Modified Atmosphere Does Not Reduce the Efficacy of Phytosanitary Irradiation Doses Recommended for Tephritid Fruit Flies. *Insects* 2020, 11, 371.

⁶ 06_SC_2019_May, Table 1.

14. The ink amendments are presented in Attachment 02 to this paper (*in English*), including the background and rationale for each specific proposal.

III. Decision

15. The CPM is invited to:

- 1) *note* the ink amendments to the following adopted Annexes to ISPM 28 (Attachment 01, *in English*):
 - PT 1: Irradiation treatment for *Anastrepha ludens* (2009)
 - PT 2: Irradiation treatment for *Anastrepha obliqua* (2009)
 - PT 3: Irradiation treatment for *Anastrepha serpentina* (2009)
 - PT 4: Irradiation treatment for *Bactrocera jarvisi* (2009)
 - PT 5: Irradiation treatment for *Bactrocera tryoni* (2009)
 - PT 7: Irradiation treatment for fruit flies of the family Tephritidae generic (2009)
 - PT 14: Irradiation treatment for *Ceratitis capitata* (2011)
- 2) *note* the ink amendments to the use of “commodity class” to ensure a consistent use across adopted ISPMs (Attachment 02, *in English*).
- 3) *note* that the ink amendments will be implemented into the language versions of the concerned standards as resources permit.
- 4) *agree* that, once the Secretariat has applied the ink amendments, the previous versions of the standards are replaced by the newly noted versions.

Title: Ink amendments (*English only*)

**Attachment 01: Ink amendments to irradiation treatments of Tephritid fruit flies in adopted Phytosanitary Treatments (PTs)
(*English only*)**

Table 1: Ink amendments to remove the restriction of the use of the irradiation treatment to commodities that have been stored in modified atmosphere

ISPM	CURRENT TEXT	PROPOSED INK AMENDMENT
ISPM 28 (<i>Phytosanitary treatments for regulated pests</i>) - PT 1 (<i>Irradiation treatment for Anastrepha ludens</i>)	"This irradiation treatment should not be applied to fruits and vegetables stored in modified atmospheres." [...]	"This irradiation treatment should not be applied to fruits and vegetables stored in modified atmospheres." [...]
ISPM 28 (<i>Phytosanitary treatments for regulated pests</i>) - PT 2 (<i>Irradiation treatment for Anastrepha obliqua</i>)	"This irradiation treatment should not be applied to fruits and vegetables stored in modified atmospheres." [...]	"This irradiation treatment should not be applied to fruits and vegetables stored in modified atmospheres." [...]
ISPM 28 (<i>Phytosanitary treatments for regulated pests</i>) - PT 3 (<i>Irradiation treatment for Anastrepha serpentina</i>)	"This irradiation treatment should not be applied to fruits and vegetables stored in modified atmospheres." [...]	"This irradiation treatment should not be applied to fruits and vegetables stored in modified atmospheres." [...]
ISPM 28 (<i>Phytosanitary treatments for regulated pests</i>) - PT 4 (<i>Irradiation treatment for Bactrocera jarvisi</i>)	"This irradiation treatment should not be applied to fruits and vegetables stored in modified atmospheres." [...]	"This irradiation treatment should not be applied to fruits and vegetables stored in modified atmospheres." [...]
ISPM 28 (<i>Phytosanitary treatments for regulated pests</i>) - PT 5 (<i>Irradiation treatment for Bactrocera tryoni</i>)	"This irradiation treatment should not be applied to fruits and vegetables stored in modified atmospheres." [...]	"This irradiation treatment should not be applied to fruits and vegetables stored in modified atmospheres." [...]
ISPM 28 (<i>Phytosanitary treatments for regulated pests</i>) - PT 7 (<i>Irradiation treatment for fruit flies of the family Tephritidae (generic)</i>)	"This irradiation treatment should not be applied to fruits and vegetables stored in modified atmospheres." [...]	"This irradiation treatment should not be applied to fruits and vegetables stored in modified atmospheres." [...]
ISPM 28 (<i>Phytosanitary treatments for regulated pests</i>) - PT 14 (<i>Irradiation treatment for Ceratitis capitata</i>)	"This irradiation treatment should not be applied to fruits and vegetables stored in modified atmospheres." [...]	"This irradiation treatment should not be applied to fruits and vegetables stored in modified atmospheres." [...]

Attachment 02: Ink amendments to ensure a consistent use of “commodity class” and its derivatives in adopted ISPMs
(English only)

Table 1: Ink amendments to ISPMs in relation to the use of “commodity class” (2018-004)

Row	ISPM	Section / para	Current text	Proposed text	Rationale
1.	13	Article 6.1 Required information (for notification)	<i>Identity of consignment.</i> Consignments should be identified by the phytosanitary certificate number if appropriate or by references to other documentation and including commodity class and scientific name (at least plant genus) for plants or plant products.	<i>Identity of consignment.</i> Consignments should be identified by the phytosanitary certificate number if appropriate or by references to other documentation and including commodity class commodity and scientific name (at least plant genus) for plants or plant products.	Reference to a ‘commodity’ instead of ‘commodity class’ in the documentation accompanying a consignment is enough (and even better) for consignment identification
2.	16	Article 4.2 “Intended use”	The “intended use” of plants for planting may be: - growing for direct production of other commodity classes (e.g. fruits, cut flowers, wood, grain) - to remain planted (e.g. ornamentals) - increasing the number of the same plants for planting (e.g. tubers, cuttings, seeds).	The “intended use” of plants for planting may be: - growing for direct production of other commodity classes commodities (e.g. fruits, cut flowers, wood, grain) - to remain planted (e.g. ornamentals) - increasing the number of the same plants for planting (e.g. tubers, cuttings, seeds).	Reference to direct production of other ‘commodities’ instead of ‘commodity classes’ is enough for specifying the “intended use” of plants for planting.
3.	16	Article 6.4 Non-compliance	Phytosanitary action taken for non-compliance with phytosanitary import requirements for RNQPs should be in accordance with the principles of non-discrimination and minimal impact. Options include: - downgrading (change commodity class or intended use) - treatment - redirection for another purpose (e.g. processing) - redirection to origin or another country - destruction.	Phytosanitary action taken for non-compliance with phytosanitary import requirements for RNQPs should be in accordance with the principles of non-discrimination and minimal impact. Options include: - downgrading (change commodity class commodity or intended use) - treatment - redirection for another purpose (e.g. processing) - redirection to origin or another country - destruction.	‘Change of commodity or intended use’ is clearer for understanding than ‘change commodity class or intended use’.
4.	21	Article 1.1 Intended use	The intended use of plants for planting may be: - growing for direct production of other commodity classes (e.g. fruits, cut flowers, wood, grain) - increasing the number of the same plants for planting (e.g. tubers, cuttings, seeds, rhizomes) - to remain planted (e.g. ornamentals); this includes plants that are intended to be used for amenity, aesthetic or other use.	The intended use of plants for planting may be: - growing for direct production of other commodity classes commodities (e.g. fruits, cut flowers, wood, grain) - increasing the number of the same plants for planting (e.g. tubers, cuttings, seeds, rhizomes) - to remain planted (e.g. ornamentals); this includes plants that are intended to be used for amenity, aesthetic or other use.	Reference to direct production of other ‘commodities’ instead of ‘commodity classes’ is enough for specifying the “intended use” of plants for planting.
5.	24	Outline of Require-ments	Equivalence generally applies to cases where phytosanitary measures already exist for a	Equivalence generally applies to cases where phytosanitary measures already exist for a specific pest	In terms of equivalence of phytosanitary measures, it is clearer for understanding

Row	ISPM	Section / para	Current text	Proposed text	Rationale
		2 nd para	specific pest associated with trade in a commodity or commodity class. Equivalence determinations are based on the specified pest risk and equivalence may apply to individual measures, a combination of measures, or integrated measures in a systems approach.	associated with trade in a commodity or commodity class . Equivalence determinations are based on the specified pest risk and equivalence may apply to individual measures, a combination of measures, or integrated measures in a systems approach.	to consider a ‘pest associated with trade in a commodity’ than a ‘pest associated with trade in a commodity or commodity class’.
6.	24	Article 2.3 Technical justification for equivalence 2 nd para	Although the alternative measures need to be examined, a new complete pest risk assessment may not necessarily be required since, as trade in the commodity or commodity class is already regulated, the importing country should have at least some PRA-related data.	Although the alternative measures need to be examined, a new complete pest risk assessment may not necessarily be required since, as trade in the commodity or commodity class already regulated, the importing country should have at least some PRA-related data.	In terms of regulation and PRA, it is more practical to consider the ‘trade in the commodity’ than the ‘trade in the commodity or commodity class’.
7.	24	Article 2.4 Non-discrimination in the application of the equivalence of phyto-sanitary measures 1 st para	The principle of non-discrimination requires that when equivalence of phytosanitary measures is granted for one exporting contracting party, this should also apply to contracting parties where the status of the relevant pest is the same and similar conditions for the same commodity or commodity class and/or pest.	The principle of non-discrimination requires that when equivalence of phytosanitary measures is granted for one exporting contracting party, this should also apply to contracting parties where the status of the relevant pest is the same and similar conditions for the same commodity or commodity class and/or pest.	The wording ‘similar conditions for the same commodity and/or pest’ is simpler and more precise than ‘similar conditions for the same commodity or commodity class and/or pest’ without changing the sense.
8.	24	Article 2.4 Non-discrimination in the application of the equivalence of phyto-sanitary measures 1 st para	It should be recognized that equivalence of phytosanitary measures does not, however, mean that when a specific measure is granted equivalence for one exporting contracting party, this applies automatically to another contracting party for the same commodity or commodity class or pest. Phytosanitary measures should always be considered in the context of the pest status and phytosanitary regulatory system of the exporting contracting party, including the policies and procedures.	It should be recognized that equivalence of phytosanitary measures does not, however, mean that when a specific measure is granted equivalence for one exporting contracting party, this applies automatically to another contracting party for the same commodity or commodity class or pest. Phytosanitary measures should always be considered in the context of the pest status and phytosanitary regulatory system of the exporting contracting party, including the policies and procedures.	The wording ‘for the same commodity or pest’ is simpler and more precise than ‘for the same commodity or commodity class or pest’ without changing the sense.
9.	24	Article 3.2 Existing measures 2 nd para	Where new commodities or commodity classes are presented for importation and no measures exist, contracting parties should refer to ISPM 11 (Pest risk analysis for quarantine pests) and ISPM 21 (Pest risk analysis for regulated non-	Where new commodities or commodity classes are presented for importation and no measures exist, contracting parties should refer to ISPM 11 (Pest risk analysis for quarantine pests) and ISPM 21 (Pest risk	In the context of PRA, it is more precise to consider commodities rather than ‘commodity classes’ as potential pest pathways.

Row	ISPM	Section / para	Current text	Proposed text	Rationale
			quarantine pests) for the normal PRA procedure.	analysis for regulated non-quarantine pests) for the normal PRA procedure.	
10.	38	Scope 1 st para	This standard provides guidance to assist national plant protection organizations (NPPOs) in identifying, assessing and managing the pest risk associated with the international movement of seeds (as a commodity class).	This standard provides guidance to assist national plant protection organizations (NPPOs) in identifying, assessing and managing the pest risk associated with the international movement of seeds (as a commodity class commodity).	It is proposed to replace the term ‘seeds (as a commodity class)’ by ‘seeds (as a commodity)’ in the Glossary.
11.	38	Scope 3 rd para	Under ISPM 5 (Glossary of phytosanitary terms) seeds (as a commodity class) are intended for planting and not for consumption. Viable seeds, which are a sample of a seed lot, imported for laboratory testing or destructive analysis are also addressed by this standard.	Under ISPM 5 (Glossary of phytosanitary terms) seeds (as a commodity class commodity) are intended for planting and not for consumption. Viable seeds, which are a sample of a seed lot, imported for laboratory testing or destructive analysis are also addressed by this standard.	It is proposed to replace the term ‘seeds (as a commodity class)’ by ‘seeds (as a commodity)’ in the Glossary.
12.	Draft ISPM on International movement of cut flowers and foliage	BACK-GROUND	Cut flowers are a short-lived commodity that may be a pathway for pest entry, although this may not always lead to establishment. Phytosanitary measures such as inspection, certification and treatments often involve a variety of phytosanitary actions to reduce the associated pest risk. Guidelines on how to minimize the pest risk from quarantine pests present in cut flowers prior to import may facilitate international trade in this commodity class.	Cut flowers are a short-lived commodity that may be a pathway for pest entry, although this may not always lead to establishment. Phytosanitary measures such as inspection, certification and treatments often involve a variety of phytosanitary actions to reduce the associated pest risk. Guidelines on how to minimize the pest risk from quarantine pests present in cut flowers prior to import may facilitate international trade in this commodity class commodity.	In terms of risk from quarantine pests present in cut flowers, it is clearer for understanding to consider ‘international trade in this commodity’ than ‘international trade in this commodity class’. It is proposed to delete the term ‘cut flowers and branches (as a commodity class)’ from the Glossary.