

2019 FIRST CONSULTATION

1 July – 30 September 2019

Compiled comments for Draft PT: Cold treatment for *Bactrocera tryoni* on *Prunus avium*, *Prunus domestica* and *Prunus persica* (2017-022B)

Summary of comments

Name	Summary	SC responses
Cuba	No hay comentarios a la propuesta de tratamiento, estamos de acuerdo con el documento.	OK
European Union	Comments submitted by the European Commission on behalf of the European Union and its 28 Member States.	OK
Malawi	Malawi supports Annex to ISPM 28: Cold Treatment for <i>Bactrocera tryoni</i> on <i>Prunus avium</i> , <i>Prunus domestica</i> and <i>Prunus persica</i> (2017-022 B)	OK
Singapore	Singapore agreed with the draft.	OK
South Africa	The National Plant Protection Organisation of South Africa (NPPOZA) has no comments and therefore accepts this standard.	OK
Viet Nam	Check again evidence information	See response to comment 16 and 19

T (Type) - B = Bullet, C = Comment, P = Proposed Change, R = Rating

FAO sequential number	Para	Text	T	Comment	SC responses
1	G	(General Comment)	C	Guyana We support the document in its entirety and have no objection with it moving forward. <i>Category : SUBSTANTIVE</i>	OK
2	G	(General Comment)	C	Mexico I support the document as it is and I have no comments <i>Category : SUBSTANTIVE</i>	OK
3	G	(General Comment)	C	China 1.The requirement for temperature treatment is "to achieve pest mortality (including devitalization of seeds as pests) at a specified efficacy" according to ISPM No.42. 2.There is a conflict between "prevention pupariation" from "mortality of eggs and larvae" in line 25. 3.The current phytosanitary procedures and regulations including ISPM No.42 will be changed if prevention pupariation is used as the criteria for evaluating treatment efficacy of the	<u>MODIFIED</u> The draft was modified and is now consistent with the adopted ISPM 28-PTs (PT 24, 25, 26, 30 and 31). The TPPT decided to mention the end point of the schedules clearly (TPPT report June 2018, para 36) in the "other relevant information" section. Failure to pupariate is considered as an appropriate measure of mortality in this case. The detailed course of action when the live larvae are detected in import-inspection

				fruit flies. 4. The mortality rate should be taken as the treatment efficiency, otherwise, once the live larvae are detected in the port quarantine, the effectiveness of the treatment cannot be judged, which will lead to trade disputes. <i>Category : SUBSTANTIVE</i>	should be determined in the work plan under the bilateral agreement.
4	G	(General Comment)	C	Indonesia Indonesia thinks that the failure to pupariate as the measure of mortality for the cold treatment successfulness can be an operational problem for the inspector (especially for the importing country). Therefore, Indonesia suggests to further study this phytosanitary treatment. <i>Category : SUBSTANTIVE</i>	<u>MODIFIED</u> The draft was modified and is now consistent with the adopted ISPM 28-PTs (PT 24, 25, 26, 30 and 31). The TPPT decided to mention the end point of the schedules clearly (TPPT report June 2018, para 36) in the "other relevant information" section. Failure to pupariate is considered as an appropriate measure of mortality in this case. The detailed course of action when the live larvae are detected in import-inspection should be determined in the work plan under the bilateral agreement.
5	G	(General Comment)	C	Barbados Barbados has no changes to make to this draft <i>Category : EDITORIAL</i>	OK
6	G	(General Comment)	C	Slovenia Slovenia would like to formally endorse the EPPO comments submitted via the IPPC Online Comment System. <i>Category : TECHNICAL</i>	OK (See EPPO comments- 25, 27, 29 and 34)
7	G	(General Comment)	C	Bahrain no comment <i>Category : TECHNICAL</i>	OK
8	G	(General Comment)	C	Israel Israel would like to formally endorse the EPPO comments submitted via the IPPC Online Comment System <i>Category : SUBSTANTIVE</i>	<u>OK</u> OK (See EPPO comments 25, 27, 29 and 34)
9	G	(General Comment)	C	Venezuela El documento propone como tratamiento en frió 14 días consecutivos a 1 ºC y 3 ºC o temperaturas inferiores, que al compararlo con investigaciones en desarrollado en el ámbito nacional en P. persica, se considera que los rangos propuestos están dentro de los valores que evidencian un alto nivel de control, que se requiere de los tratamientos fitosanitarios para alcanzar el mayor nivel de mortalidad de la plaga. Es importante señalar que la eficiencia del tratamiento esta en correspondencia con el tiempo empleado para el mismo. <i>Category : TECHNICAL</i>	<u>CONSIDERED BUT NOT INCORPORATED</u> Both schedules (1°C 14 days and 3°C 14days) will be applied to <i>Prunus persica</i> and the efficacy level is different between two schedules; 1°C 14days (99.9928%) > 3°C 14days (99.9917%).
10	G	(General Comment)	C	Thailand Thailand has no objection on the proposed draft cold	OK

				treatment for <i>Bactrocera tryoni</i> on <i>Prunus avium</i> , <i>Prunus domestica</i> and <i>Prunus persica</i> <i>Category : SUBSTANTIVE</i>	
11	G	(General Comment)	C	Botswana The standard is scientifically justified and therefore in agreement <i>Category : TECHNICAL</i>	OK
12	G	(General Comment)	C	Malawi Malawi supports Draft Annex to ISPM 28: Cold treatment for <i>Bactrocera tryoni</i> on <i>Prunus avium</i> , <i>Prunus domestica</i> and <i>Prunus persica</i> (2017-022B) <i>Category : SUBSTANTIVE</i>	OK
13	G	(General Comment)	C	New Zealand New Zealand supports the standard. <i>Category : SUBSTANTIVE</i>	OK
14	G	(General Comment)	C	Cuba Estamos de acuerdo con la propuesta de tratamiento. <i>Category : TECHNICAL</i>	OK
15	G	(General Comment)	C	Congo j approuve le projet d annexe à la NIMP 28 <i>Category : SUBSTANTIVE</i>	OK
DRAFT ANNEX TO ISPM 28: Cold treatment for <i>Bactrocera tryoni</i> on <i>Prunus avium</i> , <i>Prunus domestica</i> and <i>Prunus persica</i> (2017-022B)					
16	1	DRAFT ANNEX TO ISPM 28: Cold treatment for <i>Bactrocera tryoni</i> on <i>Prunus avium</i>, <i>Prunus domestica</i> and <i>Prunus persica</i> (2017-022B)	C	Viet Nam Check again evidence information <i>Category : TECHNICAL</i>	<u>CONSIDERED BUT NOT INCORPORATED</u> (See response to comment 19)
Treatment schedule					
17	35	For <i>Prunus persica</i> there is 95% confidence that the treatment according to this schedule prevents pupariation mortality in not less than 99.9928% of eggs and larvae of <i>Bactrocera tryoni</i> .	P	China 1.The requirement for temperature treatment is "to achieve pest mortality (including devitalization of seeds as pests) at a specified efficacy" according to ISPM No.42. 2.There is a conflict between "prevention pupariation" from "mortality of eggs and larvae" in line 25. 3.The current phytosanitary procedures and regulations including ISPM No.42 will be changed if prevention pupariation is used as the criteria for evaluating treatment efficacy of the fruit flies. 4. The mortality rate should be taken as the treatment efficiency, otherwise, once the live larvae are detected in the port quarantine, the effectiveness of the treatment cannot be judged, which will lead to trade disputes.	<u>MODIFIED</u> The draft was modified and consistent with the adopted ISPM 28-PTs (PT 24, 25, 26, 30 and 31). The TPPT decided to mention the end point of the schedules clearly (TPPT report June 2018, para 36) in the"other relevant information" section. Failure to pupariate is considered as an appropriate measure of mortality in this case. The detailed course of action when the live larvae are detected in import-inspection should be determined in the work plan under the bilateral agreement.

18	36	Schedule 2: 3 °C or below for 14 continuous days	<p><i>Category : SUBSTANTIVE</i></p> <p>United States of America</p> <p>1. Considering the submitted data, we recognize that the estimated time to achieve probit-9 mortality at 3 °C is 10.92 days for the first instars (the most tolerant stage) and that there were no survivors after 14 days at 3 °C in the large-scale confirmatory trials. However, we also noted that there were two surviving larvae after a 12-day exposure to 3 °C in the most tolerant stage tests. Since we have no information on survival at the 13-day point, we cannot confirm the presence of any ‘buffer’ with this 14 day treatment.</p> <p>2. As indicated in the report, there were twenty-one temperature readings below 2.5 °C in the 3 °C large-scale trial. While it is true that the average temperature readings for this study were mostly above 3 °C (except for one probe in replicate 1 and seven probes in replicate 3), we do not approve commercial cold treatments that have even one pulp temperature reading that exceeds the maximum allowable treatment temperature (PPQ Treatment Manual, Ch. 3-7). Therefore, we are concerned about any out-of-range temperature readings occurring in research which could potentially be the basis for many operational treatments.</p> <p>3. In addition, the acceptable range for a USDA APHIS cold treatment of 3 °C is 3.0 - 3.5 °C. The study submitted by the New South Wales Department of Primary Industries allowed a range of 2.5-3.5 °C. The temperature probe data submitted with this report revealed numerous times in which the temperature dropped below 3 °C. In addition, another criterion for a cold treatment to pass is that “fruit pulp temperatures must be maintained at the temperature specified in the treatment schedule with no more than a 0.39 °C (0.7 °F) variation in temperature between two consecutive hourly readings.” It is quite clear from the submitted temperature probe data that this occurred on numerous occasions. It appears to us that the refrigeration equipment used in these studies were not stable enough to maintain constant temperatures, which might bring into question the results of the study.</p> <p><i>Category : TECHNICAL</i></p>	<p><u>CONSIDERED BUT NOT INCORPORATED</u></p> <p>The most of the average temperatures of fruit core temperature-sensors showed more than 3°C. This means that 3°C or below for 14 days-treatment schedule has some buffer because all of the fruit core temperature sensors must keep at 3°C or below. Actually, the fruit will be exposed to quite lower temperature than 3°C in the commercial treatment.</p>
19	36	Schedule 2: 3 °C or below for 14 continuous days	<p>Viet Nam</p> <p>Check evidence information, because for 14 days similar between 1 °C and 3 °C?</p> <p><i>Category : TECHNICAL</i></p>	<p><u>CONSIDERED BUT NOT INCORPORATED</u></p> <p>Both schedules (1°C 14 days and 3°C 14days) will be applied to Prunus persica and the efficacy level is different between two schedules; 1°C 14days (99.9928%) > 3°C 14days (99.9917%).</p>

20	37	For <i>Prunus avium</i> there is 95% confidence that the treatment according to this schedule mortality prevents pupariation in not less than 99.9966% of eggs and larvae of <i>Bactrocera tryoni</i> .	P	China <i>Category : SUBSTANTIVE</i>	<u>MODIFIED</u> (see response in 17)
21	38	For <i>Prunus domestica</i> there is 95% confidence that the treatment according to this schedule mortality prevents pupariation in not less than 99.9953% of eggs and larvae of <i>Bactrocera tryoni</i> .	P	China <i>Category : SUBSTANTIVE</i>	<u>MODIFIED</u> (see response in 17)
22	39	For <i>Prunus persica</i> there is 95% confidence that the treatment according to this schedule mortality prevents pupariation in not less than 99.9917% of eggs and larvae of <i>Bactrocera tryoni</i> .	P	China <i>Category : SUBSTANTIVE</i>	<u>MODIFIED</u> (see response in 17)
23	40	For both schedules, the fruit must reach the treatment temperature before treatment exposure time commences. The fruit <u>core</u> temperature should be monitored and recorded, and the temperature should not exceed the stated level throughout the duration of the treatment.	P	Japan As defined in section 4.2 of ISPM 42, the fruit core temperature should be monitored during cold treatment, so add "core" to clarify the monitoring point. In TPs of cold treatment that have been adopted so far, "core" is not defined in their requirements. However, in TPs of vapor heat treatment (PT 21, 30-32), "core" is defined in their requirements as defined in ISPM 42 (Section 4.2.3). Therefore, TPs of cold treatment that have been adopted so far need to be revised where necessary. <i>Category : SUBSTANTIVE</i>	<u>INCORPORATED</u> Revised draft PT. <u>CONSIDERED BUT NOT INCORPORATED</u> It was noted that some of the other cold treatments do not specify to measure temperatures at the core. The adopted cold treatments (PT 16, 17, 18, 24, 25, 26, 27, 28 and 29) were worded according to the research supporting them (depending on where the temperature was measured).
Other relevant information					
24	44	Schedules 1 and 2 were based on the work of NSW DPI (2008, (2008 and 2012)) and developed using failure to pupariate as the measure of mortality.	P	European Union A comma to be replaced with ' and ' . <i>Category : EDITORIAL</i>	<u>CONSIDERED BUT NOT INCORPORATED</u> Action in accordance with the adopted ISPM 28-PTs such as PT 22 and PT 23.
25	44	Schedules 1 and 2 were based on the work of NSW DPI (2008, (2008 and 2012)) and developed using	P	EPPO A comma to be replaced with ' ' and ' ' . <i>Category : EDITORIAL</i>	<u>CONSIDERED BUT NOT INCORPORATED</u> Action in accordance with the adopted ISPM 28-PTs such as PT 22 and PT 23.

		failure to pupariate as the measure of mortality.			
26	45	The efficacy of schedule 1 was calculated based on the following estimated treated numbers of treated <i>Bactrocera tryoni</i> with no survivors:	P	European Union For clarity (see paragraph 75 and Appendix 8 of the 2018-06 TPPT report). <i>Category : EDITORIAL</i>	<u>INCORPORATED</u> Revised draft PT.
27	45	The efficacy of schedule 1 was calculated based on the following estimated treated numbers of treated <i>Bactrocera tryoni</i> with no survivors:	P	EPPO For clarity (see paragraph 75 and Appendix 8 of the 2018-06 TPPT report). <i>Category : EDITORIAL</i>	<u>INCORPORATED</u> Revised draft PT.
28	47	The efficacy of schedule 2 was calculated based on the following estimated treated numbers of treated <i>Bactrocera tryoni</i> with no survivors:	P	European Union For clarity (see paragraph 75 and Appendix 8 of the 2018-06 TPPT report). <i>Category : EDITORIAL</i>	<u>INCORPORATED</u> Revised draft PT.
29	47	The efficacy of schedule 2 was calculated based on the following estimated treated numbers of treated <i>Bactrocera tryoni</i> with no survivors:	P	EPPO For clarity (see paragraph 75 and Appendix 8 of the 2018-06 TPPT report). <i>Category : EDITORIAL</i>	<u>INCORPORATED</u> Revised draft PT.
30	51	Schedules 1 and 2 were developed using the following commodities and cultivars:	C	Argentina It is recommended not to mention varieties in this section, in order to avoid confusion when implementing the treatment scheme in the different species of <i>Prunus</i> . For more information, see the references section. On the other hand, according to ISPM 28, the requirement for varietal tests must be based on evidence that varietal differences have implications for treatment efficacy. <i>Category : SUBSTANTIVE</i>	<u>CONSIDERED BUT NOT INCORPORATED</u> Some adopted ISPM 28-PTs (PT 15, 16, 17, 18, 21, 25, 26, 27, 28, 29, 30, 31 and 32) have similar descriptions on varieties used in the mortality tests in the References.
31	51	Schedules 1 and 2 were developed using the following commodities and cultivars:	C	Uruguay It is recommended not to mention cultivars in this section, in order to avoid confusion when implementing the treatment schedule in different cultivars of <i>Prunus</i> sp. Detailed information on cultivars can be found in the references listed in 'References' section. On the other hand, according to ISPM 28, a requirement for varietal testing should be based on evidence that the varietal differences impact treatment efficacy, and data should be provided to support the requirement	<u>CONSIDERED BUT NOT INCORPORATED</u> Some adopted ISPM 28-PTs (PT 15, 16, 17, 18, 21, 25, 26, 27, 28, 29, 30, 31 and 32) have similar descriptions on varieties used in the mortality tests in the References.

				<i>Category : TECHNICAL</i>	
32	51	Schedules 1 and 2 were developed using the following commodities and cultivars:	C	<p>COSAVE Se recomienda no hacer menci&#243;n a los cultivares en esta secci&#243;n, a fin de evitar confusi&#243;n cuando se implemente el protocolo de tratamiento en las distintas especies de <i>Prunus</i>. Para mas informaci&#243;n, se encuentra la secci&#243;n de referencias. Por otro lado de acuerdo a la NIMF 28, la exigencia de pruebas varietales deben basarse en la evidencia de que las diferencias varietales tienen consecuencias para la eficacia del tratamiento.</p> <p>It is recommended not to mention varieties in this section, in order to avoid confusion when implementing the treatment scheme in the different species of <i>Prunus</i>. For more information, see the references section. On the other hand, according to ISPM 28, the requirement for varietal tests must be based on evidence that varietal differences have implications for treatment efficacy.</p> <p><i>Category : TECHNICAL</i></p>	<p><u>CONSIDERED BUT NOT INCORPORATED</u> Some adopted ISPM 28-PTs (PT 15, 16, 17, 18, 21, 25, 26, 27, 28, 29, 30, 31 and 32) have similar descriptions on varieties used in the mortality tests in the References.</p>
33	55	In this treatment, <i>Prunus persica</i> includes all cultivars and varieties, including nectarines (Vendramin <i>et al.</i> , 2014).	P	<p>European Union A dot and a comma are missing. <i>Category : EDITORIAL</i></p>	<p><u>INCORPORATED</u> Revised draft PT.</p>
34	55	In this treatment, <i>Prunus persica</i> includes all cultivars and varieties, including nectarines (Vendramin <i>et al.</i> , 2014).	P	<p>EPPO A dot and a comma are missing. <i>Category : EDITORIAL</i></p>	<p><u>INCORPORATED</u> Revised draft PT.</p>