

2019 FIRST CONSULTATION

1 July – 30 September 2019

Compiled comments for Draft PT: Cold treatment for *Bactrocera tryoni* on *Vitis vinifera* (2017-023B)

Summary of comments

Name	Summary
Cuba	Estamos de acuerdo con la propuesta de tratamiento.
European Union	Comments submitted by the European Commission on behalf of the European Union and its 28 Member States.
Malawi	Malawi supports the draft PT Cold treatment for <i>Bactrocera tryoni</i> on <i>Vitis vinifera</i> (2017-023)
Singapore	Singapore agreed with the draft.
South Africa	The National Plant Protection Organisation of South Africa (NPPOZA) has no comments and therefore accepts this standard.

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

FAO sequential number	Para	Text	T	Comment
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>
2	G	(General Comment)	C	Mexico I support the document as it is and I have no comments <i>Category : SUBSTANTIVE</i>
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 22. 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. <i>Category : SUBSTANTIVE</i>
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>
5	G	(General Comment)	C	Barbados Barbados has no changes to make to this draft. <i>Category : EDITORIAL</i>
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>
7	G	(General Comment)	C	Bahrain no comment <i>Category : TECHNICAL</i>
8	G	(General Comment)	C	Thailand Thailand has no objection on the proposed draft cold treatment for <i>Bactrocera tryoni</i> on <i>Vitis vinifera</i> <i>Category : SUBSTANTIVE</i>
9	G	(General Comment)	C	Botswana The annex is scientifically justified and we are in agreement with the proposed treatment. <i>Category : TECHNICAL</i>
10	G	(General Comment)	C	Malawi Malawi supports draft PT Cold Treatment for <i>Bactrocera tryoni</i> on <i>Vitis vinifera</i> (2017-023B) <i>Category : SUBSTANTIVE</i>
11	G	(General Comment)	C	New Zealand New Zealand supports the standard. <i>Category : SUBSTANTIVE</i>
12	G	(General Comment)	C	Cuba Estamos de acuerdo con la propuesta de tratamiento. <i>Category : TECHNICAL</i>
Treatment description				
13	29	Target regulated articles	Fruit of <i>Vitis vinifera</i> - (table grapes)	P European Union For clarity, and for consistency with paragraph 22 of this draft and with the draft PTs 2017-022A (paragraph 30) and 2017-022B (paragraph 32). <i>Category : EDITORIAL</i>
14	29	Target regulated articles	Fruit of <i>Vitis</i> <i>vinifera</i> <i>vinifera</i> -(table grapes)	P EPPO For clarity, and for consistency with paragraph 22 of this draft and with the draft PTs 2017-022A (paragraph 30) and 2017-022B (paragraph 32). <i>Category : EDITORIAL</i>
Treatment schedule				

15	30	Treatment schedule	<p>C United States of America</p> <p>1. Infestation procedures. The researchers used artificial infestation to inoculate the grapes with <i>B. tryoni</i>. When artificial infestation is used, we recommend confirming that the cold tolerance of the pest is the same for both artificial and natural (i.e., oviposition) infestation. Hallman (2014) cautioned against making assumptions regarding the equivalency of infestation techniques without testing.</p> <p>2. Geographic origin of lab colonies. Genetic studies indicate that population differentiation, caused by restricted gene flow and genetic drift, exists among Queensland fruit flies collected from various geographic locations in Australia (Gilchrist et. al. 2006; Gilchrist and Meats. 2010). The lab colony used in this experiment was from a restricted geographic location. It is unknown whether cold tolerance variation among geographically-isolated populations could affect the schedule efficacy.</p> <p>3. Temperature fluctuation during the research. In the research data provided, it is common to have a few up to more than 600 temperature readings outside $17\pm 0.5^{\circ}\text{C}$ range for a single replicate. The frequent readings with 0.5°C lower than the required temperature could bring into question the efficacy of the recommended treatment. This temperature fluctuation could also indicate problems with the research equipment or the probe placement.</p> <p>4. Minor notes on research details. It would have been useful for the researchers to provide additional details on the following topics:</p> <ul style="list-style-type: none"> a. Colony health parameters such as percentage of larval pupation and of egg and pupal eclosion, fecundity of the flies, mean weight of the pupae, and sex ratio of the adults, to ensure that the experimental colony had no health issues that could have influenced the research results. b. Information on whether the colonies used in this experiment were replaced in the manner and at the frequency described by DeLima et al. (2007). c. Infestation rate per grape for <i>B. tryoni</i> during the experiments, along with any comments on whether this infestation rate could have influenced the experimental results. d. Pictures and/or diagrams showing the experimental setup for the cold treatment, such as arrangement of cartons on the pallets in the cold treatment chamber, placement of probes within the stacks, etc.
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				<p>Literature Cited:</p> <p>DeLima, C. P. F., A. J. Jessup, L. Cruickshank, C. J. Walsh, and E. R. Mansfield. 2007. Cold disinfestation of citrus (<i>Citrus</i> spp.) for Mediterranean fruit fly (<i>Ceratitis capitata</i>) and Queensland fruit fly (<i>Bactrocera tryoni</i>) (Diptera: Tephritidae). <i>New Zealand Journal of Crop and Horticultural Science</i> 35: 39 – 50.</p> <p>Gilchrist AS, B Dominiak, PS Gillespie, JA Sved. 2006. Variation in population structure across the ecological range of the Queensland fruit fly, <i>Bactrocera tryoni</i>. <i>Australian J Zool.</i> 54: 87-95.</p> <p>Gilchrist AS, AW Meats. 2010. The genetic structure of populations of an invading pest fruit fly, <i>Bactrocera tryoni</i>, at the species climatic range limit. <i>Heredity</i> 105: 165-172.</p> <p>Hallman, G. J. 2014. Insect thermotolerance comparing host infestation methods: <i>Anastrepha ludens</i> (Diptera: Tephritidae) reared in grapefruit or diet. <i>Journal of Economic Entomology</i> 107(4): 1377 – 1384.</p> <p>Category : <i>TECHNICAL</i></p>
16	32	There is 95% confidence that the treatment according to this schedule prevents pupariation-mortality in not less than 99.9964% of eggs and larvae of <i>Bactrocera tryoni</i> .	P	<p>China</p> <p>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.</p> <p>2.There is a conflict between “prevention pupariation” from “mortality of eggs and larvae” in line 22.</p> <p>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.</p> <p>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.</p> <p>Category : <i>SUBSTANTIVE</i></p>
17	34	There is 95% confidence that the treatment according to this schedule prevents pupariation-mortality in not less than 99.9984% of eggs and larvae of <i>Bactrocera tryoni</i> .	P	<p>China</p> <p>Category : <i>SUBSTANTIVE</i></p>
18	35	For both schedules, the fruit must reach the treatment temperature before treatment exposure time commences. The fruit core temperature should be monitored and recorded, and the temperature should not exceed the stated level throughout the duration of the treatment.	P	<p>Japan</p> <p>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.</p> <p>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).</p>

				Therefore, TPs of cold treatment that have been adopted so far need to be revised where necessary. <i>Category : SUBSTANTIVE</i>
Other relevant information				
19	37	Other relevant information		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>Vitis vinifera</i> . 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 <i>Category : TECHNICAL</i>
20	42	Schedule 2 was developed using the cultivars 'Red Globe', 'Crimson Seedless' and 'Thompson Seedless'.		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>Vitis</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>
21	42	Schedule 2 was developed using the cultivars 'Red Globe', 'Crimson Seedless' and 'Thompson Seedless'.		C COSAVE Se recomienda no hacer mención a los cultivares en esta sección, a fin de evitar confusión cuando se implemente el protocolo de tratamiento en los distintos cultivares de <i>Vitis</i> . Para mas información, se encuentra la sección 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. 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>Vitis</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 : TECHNICAL</i>