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| **Cold treatment of *Ceratitis capitata* on *Citrus paradisi* (2007-210)** | | | |
|  | **Contracting Party** | **Formal objection and Explanation 2014** | **SC Responses** |
| 14 | China | China believes that the conditions for adopting < Cold treatment for *Ceratitis capitata* on *Citrus paradisi* > (CPM 2014/03\_10) are not perfectly satisfied and formally objects to adopting the draft standard. The reasons are as follows:  1. High security of phytosanitary treatment requires a large number of studies and test data. The draft standard is based on 3 references among which only 2 are drawn from laboratory studies, which can hardly support the cold treatment standard. | The data and other information submitted by the NPPO for the evaluation of efficacy, feasibility and applicability of these treatments were analyzed by the TPPT and found to fulfill all the requirements stated by ISPM 28 regarding sufficiency of data and requirements for scientific rigour. |
| 15 | China | 2. The study of the cold treatment for *Ceratitis capitata* on *Citrus sinensis* by De Lima *et al*. (2007) demonstrates a treatment schedule of “2 ℃ or below for 18 continuous days”, while the study by Willink *et al.* (2007) supports the schedule of “2 ℃ or below for 21 continuous days”, which indicates that there could be a big difference of low temperature tolerance between different geographical populations of *Ceratitis capitata*. And hence it may incur high phytosanitary risk that the draft standard extrapolates the study findings from a specific geographical population of *Ceratitis capitata* to all the populations of the species worldwide. | The TPPT noted that different research methodologies may result in different, but valid treatment schedules. The TPPT considered a recent scientific study (see 2016-09 TPPT meeting report) undertaken to investigate possible differences in cold toleranceamong populations of *Ceratitis capitata* from geographically separate regions.  Based on the assessment of the findings, the TPPT concluded that there is no evidence to support there are significant differences in cold tolerance among populations of *C. capitata* and that comparisons between the treatment schedules mentioned in the objection (carried out with different research methodologies) do not provide evidence for differences in cold toleranceamong populations of *C. capitata*. Therefore this phytosanitary treatment fully meets the requirements set out in ISPM 28. |
| 16 | China | 3. As the bases for the draft standard, the study by Willink *et al*. (2007) tests only a few of cultivars while the difference of cultivars has not been taken into consideration. The extrapolation of the findings from a few cultivars to all the cultivars may incur phytosanitary risk. | The TPPT is unaware of evidence that substantiates cultivar and varietal differences in cold treatment efficacy in *Citrus* species. In addition, Willink et al., 2007 demonstrated the efficacy of the treatment schedule across four varieties of *C. paradisi* and found no significant differences in varietal responses. The TPPT concluded that this study demonstrates that there are no significant differences in varietal responses to cold treatments.  In accordance with ISPM 28 section 3.2.1, the TPPT accepts the treatment applicability at species level. Therefore this phytosanitary treatment fully meets the requirements set out in ISPM 28. |
| 17 | China | 4. Pre-cooling before treatment, temperature monitoring and recording during the treatment have a direct influence on the efficiency. The draft standard sets only the temperature and duration requirements for the treatment without illustrating the approach to meeting such requirements. The wording in the draft standard “Pre-cooling of the commodity to treatment temperature may be required” is ambiguous, and some important operational requirements such as temperature monitoring and recording are not addressed in the draft at all. Should the draft standard be approved, the ambiguous and incomplete operational requirements could render the treatment invalid. Considering the wide application and significant influence of the cold treatment worldwide, it is recommended that taking the example of setting the series of irradiation treatment standards, an comprehensive operational standard similar to < Guidelines for the Use of Irradiation as a Phytosanitary Measure> (ISPM 18) be set in advance to standardize the operational requirements including pre-cooling, temperature monitoring and recording, and then proceed to specific cold treatment measures. | The TPPT considered that pre-cooling, temperature monitoring and recording are important operationally but are not part of the treatment schedule. NPPOs certifying the use of cold treatments should therefore ensure these operational issues are managed appropriately. Further guidance to NPPOs on these issues will be addressed by the drafting of the ISPM on requirements for the use of temperature treatments. Reference to pre-cooling has therefore been removed from the draft treatment schedule. |
| 18 | China | 5. China further maintains that the treatment standards differ from the conceptual standards. It has a direct relationship with the spread of pests infesting agricultural products and the achievement of the purpose and responsibility of the International Plant Protection Convention. The treatment standard approved by CPM should be based on sufficient test data or a large volume of the practical application of the treatment by the contracting parties. If the method concluded from a few tests was promoted globally in a form of ISPM, it would turn the contracting parties into trial sites of new methods and technologies and finally significantly increase the risk of pest spread. | The TPPT considers that the treatment submission conformed with ISPM 28 requirements, including the level of evidence provided. Therefore this phytosanitary treatment fully meets the requirements set out in ISPM 28. |
| 19 | Japan | Japan appreciates the extensive discussions and efforts of the SC and the TPPT in developing important phytosanitary treatments over the years.  Japan would like to express its formal objections with regards to th[is] draft cold treatments because the schedule is not deemed to fulfil the requirements for phytosanitary treatment in section 3 of ISPM 28 […].  Japan does not object to the treatment schedules proposed, insofar as they will be used in certain countries where research was conducted and they are well supported by research data and rationale for presenting the schedules. However Japan has concerns about the feasibility and applicability (especially versatility of the treatment e.g. application to a wide range of countries) of the above-mentioned four treatments proposed as international standards.  For the purpose of developing efficient phytosanitary treatments to be used as international standards by contracting countries that wish to use them, Japan suggests that the adoption of the said four standard treatments be suspended until the following points are reviewed.  References in the schedule for grapefruit (CPM 2014/03\_10), Willink *et al*. (2007a) and Willink *et al.* (2007b), do not give grounds for Schedule 2 (3 °C for 23 days) because related data is not mentioned in these research papers. Therefore, the rationale for presenting the schedule should be described in the ISPM with referential data (Refer to Table D).  The summary of research submitted by the exporting countries to Japan as well as data referred to in the draft ISPMs (Table attached to this document) shows differences between fruit fly populations in terms of their cold hardiness. 　This is likely because there are notable differences in treatment days for the same target article at the same treatment temperature (5-7days). Japan suggested in the member consultation in 2009 that the differences between fruit fly populations in terms of cold hardiness possibly indicate tolerance (susceptibility) to cold treatment differs by origins. However, the TPPT concluded that “*while there were considered to be phenotypic differences (plasticity) induced by the environment and as a result of seasonal or geographical effects, it was not thought that this was a significant issue.”* (2010 TPPT Meeting Report) It has not been explained the rationale as to why the TPPT concluded the differences are not thought to be a significant issue in terms of effectiveness of phytosanitary treatment. 　Japan underlines the difference between fruit fly populations in terms of cold hardiness should be duly taken into account so that the teatments can achieve stated efficacy in any circumstances. | Initial acceptance of the schedule was based on unpublished data in addition to the studies by Willink *et al.* 2007 and Gastaminza et al. 2007 as part of the original submission. These additional data was included in the list of references for the proposed schedule.  The TPPT noted that different research methodologies may result in different, but valid treatment schedules. The TPPT considered a recent scientific study (see 2016-09 TPPT meeting report) undertaken to investigate possible differences in cold toleranceamong populations of *Ceratitis capitata* from geographically separate regions.  Based on the assessment of the findings, the TPPT concluded that there is no evidence to support there are significant differences in cold tolerance among populations of *C. capitata* and that comparisons between the treatment schedules mentioned in the objection (carried out with different research methodologies) do not provide evidence for differences in cold toleranceamong populations of *C. capitata*. Therefore this phytosanitary treatment fully meets the requirements set out in ISPM 28. |
| 20 | Japan | In addition, the proposed standard treatment on orange (CPM 2014/03\_04) seems to support the differences between fruit fly populations in terms of their cold hardiness because it presents different treatment schedules (18 days / 21 days) at the same temperature (2.0°C) based on the different results conducted in different countries. | The TPPT noted that different research methodologies may result in different, but valid treatment schedules. The TPPT considered a recent scientific study (see 2016-09 TPPT meeting report) undertaken to investigate possible differences in cold toleranceamong populations of *Ceratitis capitata* from geographically separate regions.  Based on the assessment of the findings, the TPPT concluded that there is no evidence to support there are significant differences in cold tolerance among populations of *C. capitata* and that comparisons between the treatment schedules mentioned in the objection (carried out with different research methodologies) do not provide evidence for differences in cold toleranceamong populations of *C. capitata*. Therefore this phytosanitary treatment fully meets the requirements set out in ISPM 28. |
| 21 | Japan | Suggestions for improvement to the draft ISPM  Japan would like to suggest that the said four standard treatments be reviewed while taking into account the following points, with the understanding that the standard treatment should be feasible and applicable to a wide range of countries without inviting any confusion in implementing them once they are adopted by the CPM.  1. It is requested that a treatment schedule which is the least restrictive measure available but is effective in disinfecting target pests in any circumstances be developed. It is also requested that available research data and existing treatment schedules used in many countries be collected.  For this purpose, Japan is willing to provide available research data submitted by exporting countries to the IPPC Secretariat when requesting export of their products to Japan, subject to the approval of these countries. | The TPPT has considered the four treatment schedules and agreed that they fulfil the requirements in ISPM 28. The TPPT supports transparency and encourages treatment submitters to make data available to all IPPC contracting parties. |
| 22 | Japan | 2. More detailed information on the rationale and validity of presenting draft standard treatments made by the SC and TPPT should be available to the contracting countries for their scrutiny. | The TPPT and the IPPC Secretariat have taken steps to include more of the rationale and validity for the draft treatments i to satisfy these suggestions. |
| 23 | Korea | Proposed schedule 2 (3C for 23days) is not supported by relevant references (Willink et at 2007 a & b). | Initial acceptance of the schedule was based on unpublished data in addition to the studies by Willink *et al.* 2007 and Gastaminza *et al.* 2007 as part of the original submission. The additional data was included in the list of references for the proposed schedule.  The TPPT noted that different research methodologies may result in different, but valid treatment schedules. The TPPT considered a recent scientific study (see 2016-09 TPPT meeting report) undertaken to investigate possible differences in cold toleranceamong populations of *Ceratitis capitata* from geographically separate regions.  Based on the assessment of the findings, the TPPT concluded that there is no evidence to support there are significant differences in cold tolerance among populations of *C. capitata* and that comparisons between the treatment schedules mentioned in the objection (carried out with different research methodologies) do not provide evidence for differences in cold toleranceamong populations of *C. capitata*. Therefore this phytosanitary treatment fully meets the requirements set out in ISPM 28. |

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| **Cold treatment of *Ceratitis capitata* on *Citrus paradisi* (2007-210)** | | | |
| **Contracting Party** | **Formal objection and Explanation**  **2012** | **SC Responses** |
| European Union | The EU and its 27 Member States hereby express their formal objection with regards to the draft cold treatment for Ceratitis capitata on Citrus paradisi (2007-210).  Although we accept the efficacy data supporting the treatments, we are concerned about the practical and operational feasibility of adopting only one cold treatment for a pest/host combination at this time, while alternative schedules of cold treatment for *Ceratitis capitata* are accepted and applied by Contracting Parties in existing trades with citrus fruits. EU (namely Spain) has submitted to the IPPC/TPPT, prior to its meeting in 2010, scientific evidence on the efficacy and operational feasibility of some of those alternative schedules. We do believe that, if there had been a regular TPPT meeting in 2011, more alternatives of cold treatments for *Ceratitis capitata* on specific hosts would have been submitted for approval in CPM-7. Accepting only one schedule for a specific pest/host combination at this time is considered misleading. It may have a confusing or even negative impact on existing practices as trade in citrus fruits is a highly sensitive domain. The EU suggests that the adoption of the two treatments be suspended until a range of cold treatments for a pest/host combination can be adopted at the same time. It would allow Contracting Parties to choose from several options the one(s) they wish to implement. We also believe that our rationale is in line with our member comment (Country Consultation 2009), where we proposed that cold treatments for *Ceratitis capitata* were suspended until additional schedules could be added. Our then argument was as follows: "The current proposal seems to be too restrictive in terms of the schedules included therein. In our view, the number of schedules should be expanded to include others that achieve sufficient efficacy with shorter treatment periods, which are successfully used in international trade. Examples include cold treatment of *Citrus sinensis* fruit at 2°C for 16 or 17 days. A possible broader choice of schedules would allow for more flexible applicability of the cold treatments as well as enhancing their practical use." | This objection is not based on technical issues and therefore the TPPT does not have a response to this objection.  NB: the TPPT evaluates a variety of treatments at any one time, sometimes many of the same treatment type, like cold treatment, for example. Not all treatments progress through the evaluation process at the same rate. Often, follow-up requests must be made of the submitter for clarification, additional information, or other technical issue relating to a submission. Consequently, some treatments are successfully evaluated much faster than others. When all requirements are met, that treatment is recommended for review and adoption.  The TPPT and the IPPC Secretariat have taken steps to include more of the rationale and validity for the draft treatments to satisfy these suggestions. |