



**SDI Review Form 1.6**

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| Journal Name:            | <a href="#">Journal of Experimental Agriculture International</a>                                     |
| Manuscript Number:       | Ms_JEAI_41065                                                                                         |
| Title of the Manuscript: | Germination and development of 'Precocinho' peach embryos: asepsis and use of PPMTM in culture medium |
| Type of the Article      | Original Research Article                                                                             |

**General guideline for Peer Review process:**

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound.

To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



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**PART 1: Review Comments**

|                                     | Reviewer's comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
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| <b>Compulsory</b> REVISION comments | <p><b>Abstract</b></p> <ol style="list-style-type: none"> <li>1. "...with and without addition of PPM, totaling nine treatments". Is that 4 with and 4 without PPM + 1 control = 9?</li> <li>2. "However, 65 days after culture, the NaClO with PPM addition presented the best results for the variables analyzed." is this for the embryo development?"</li> <li>3. "The average seedling survival was 81.6%, after acclimatization." Is this for all 9 treatments?</li> <li>4. What about results related to acclimatization?</li> </ol> <p><b>Introduction</b></p> <ol style="list-style-type: none"> <li>5. "...being the most important programs those from the Agronomic Institute of Campinas (SP) and Embrapa Temperate Climate, in Pelotas (RS) [1]."What is the value of this statement in terms of better understanding the content of this paper?</li> <li>6. "...the embryo rescue is made in the lab, under controlled conditions" What does this imply?</li> <li>7. "The aim of this work was to test asepsis methods and the use of PPM<sub>TM</sub> in the culture medium for germination and development of 'Precocinho' peach embryos." Why was 'Precocinho' peach specifically chosen?</li> </ol> <p><b>Materials and Methods</b></p> <ol style="list-style-type: none"> <li>8. Were there control samples?</li> <li>9. "Subsequently, the seedlings with a <u>good development</u> of aerial part and root system were planted in..." What constitutes good development?</li> <li>10. Where are the p-values from the ANOVA displayed/indicated in this paper?</li> </ol> <p><b>Results and Discussion</b></p> <ol style="list-style-type: none"> <li>11. "In the present work the experiment was performed in the same week of the fruit harvesting in the field." – This is methodology – relocated this sentence to Materials and Methods.</li> <li>12. "As for the main root length (pivotant root), the treatments T6 NaClO, without PPM<sub>TM</sub> and T9 (thimerosal, with PPM<sub>TM</sub>, kept for five days under 22±1°C) presented better results (0.79 and 0.78cm, 120 respectively), and did <u>not statistically differ</u> from each other (Table 1). Table 1 does not indicate significance. Thus this cannot be linked to Table 1.</li> <li>13. "treatment T2 (NaClO, with PPM<sub>TM</sub>) presented the best results for the analyzed variables, not statistically differing from T3, T4 e T6 for main root length and from T3 e T6 for the number of secondary roots (Table 2)." Table 2 does not indicate significance. Thus this cannot be linked to Table 1.</li> <li>14. "In the present work, the treatments T2, T3 and T6 presented uniformity in the length of the main root, between 7.20 and 7.56cm and in number of secondary roots, between 11.15 e 12.45, considered as satisfactory (Table 2).<br/>For the length of aerial part, the lowest indexes obtained were in plantlets submitted to T8 (moxifloxacin hydrochloride, without PPM<sub>TM</sub>) and T9 (thimerosal, with PPM<sub>TM</sub>, kept for five days under 22±1°C) treatments. All the other treatments had shoot height between 2.93 and 3.98cm, and did not statistically differ among them." Where is the discussion of all these results?</li> <li>15. "Considering the total of acclimatized plants, an overall average survival of 81.6% was obtained, which can be considered as <u>a good survival percentage</u>." Reference is needed to confirm/indicate what a good survival percentage is.</li> <li>16. "Acclimatization is considered the most delicate step in the process of obtaining seedlings by tissue culture." Reference is needed for this statement.</li> <li>17. "During the <i>in vitro</i> cultivation, the seedlings are conditioned in an enclosed environment under controlled temperature and photoperiod, high air humidity in addition to the supply of nutrients." Harmonize with statement in Methods section: "After this first evaluation the test tubes were transferred to a growth chamber with 24±1°C temperature and 16h photoperiod, where they remained for ten days."</li> </ol> | <p><b>Abstract</b></p> <ol style="list-style-type: none"> <li>1. Regarding the use of PPM, there are 4 treatments without PPM (T1, T2, T3 and T4) and 5 treatments with PPM (T5, T6, T7, T8 and T9). There is no control. The T9 is differentiated from the other treatments, because the material remains in the temperature of 22 ± 1 ° C for five days, before vernalization.</li> <li>2. Yes, that was for the development of the embryos.</li> <li>3. Yes, considering all treatments, the average survival of the seedlings after acclimatization was 81.6%</li> <li>4. The results related to acclimatization are presented in Table 3. Shoot height (cm) and survival (%) were evaluated.</li> </ol> <p><b>Introduction</b></p> <ol style="list-style-type: none"> <li>5. This information is important because this experiment was developed within one of these programs (Embrapa Clima Temperado, Pelotas, RS). It is also part of the contextualization of the Introduction.</li> <li>6. Controlled conditions refer to aseptic conditions, temperature and culture medium suitable for the development of the embryos.</li> <li>7. The 'Precocinho', for being an early cultivar, and have the particularity of presenting the immature embryos at harvest time. Embryoculture is the only technique that allows the use of this cultivar in the breeding program.</li> </ol> <p><b>Materials and Methods</b></p> <ol style="list-style-type: none"> <li>8. It hasn't control treatment</li> <li>9. The seedlings with aerial part and root system (proportional) with normal development were transplanted.</li> <li>10. Onde os valores p da ANOVA são exibidos / indicados neste documento?<br/>The P-values were added.</li> </ol> <p><b>Results and Discussion</b></p> <ol style="list-style-type: none"> <li>11. This statement is part of the methodology, but in this part of the text is complementing the discussion about what was cited by the authors Anderson, Byrne e Ramming (2006).</li> <li>12. In this case, the P-value was added in the text.</li> <li>13. The P-values were added in the Table 2.</li> <li>14. The discussion is made throughout the text and together with other variables.</li> <li>15. Within the Embrapa Clima Temperado peach breeding program, when there is a percentage of seedling survival greater than 80%, it is considered satisfactory.</li> <li>16. From practical experience in the field, no reference is necessary to this statement.</li> <li>17. The suggestion was considered.</li> </ol> |
| <b>Minor</b> REVISION comments      | <p>Grammar generally poor. Examples:</p> <ol style="list-style-type: none"> <li>18. "Several substances with germicidal action are used to <del>make the disinfection</del> of plant material [8]. Among</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <p>Grammar generally poor. Examples:</p> <p>Changes were made to the text according to the</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |



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|                                  | <p>the most used products for explants asepsis is the sodium hypochlorite (NaClO) normally..."</p> <p>19. "The NaClO has the advantage of being water soluble, which makes it easy to remove and avoid the residual effects [9]."</p> <p>20. "It has the advantage over other antibiotics because it is heat stable <del>what</del> which means that it can be added to the medium and autoclaved [13]."</p> <p>21. "Thus, a study to adequately address the disinfestation protocols, according to the species, and elucidates the sensibility of the tissue to the process, it is needed [16]."</p> <p>22. "After 55 days of vernalization, when the material was removed from <del>de</del> the cold room, the ..."</p> <p>23. "After 20 days the percentage of plant survival and plant <del>high</del> height were evaluated."</p> <p>24. "According to [19], the.." reshape sentence to place reference marker at end of sentence.</p> <p>25. Just too many other grammatical issues to indicate.</p> | suggestions. |
| <u>Optional/General</u> comments |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |              |