



SDI FINAL EVALUATION FORM 1.1

PART 1:

Journal Name:	Journal of Experimental Agriculture International
Manuscript Number:	Ms_JEAI_38522
Title of the Manuscript:	Effect of chemical thinning season using Metamitron on peaches 'Sensação' quality
Type of Article:	Original Research Article

PART 2:

FINAL EVALUATOR'S comments on revised paper (if any)	Authors' response to final evaluator's comments
I expected all the issues I commented in previous review were addressed; but main issues were not. For example, whether the farmers cropped or not in 2014 is still unidentified. Regarding the conclusion, I'm still not sure why 30 and 60 DAFBs is concluded so that the features are close to that of manual thinning. In L.91, the reason of why the author believes metamitron changes skin color was added; however, the explanation makes no sense for my previous comment. The paragraph should be revised, for example, "In 2015, the skin color of manual thinning and 20DAFB peaches had 5% significant difference with that of 40-60DAFB peaches. The fruits of the plants submitted to manual thinning and to the chemical thinning with metamitron at 20 and 30 DAPF presented a yellow-green color, whereas the plants thinned with metamitron at 40, 50 and 60 DAPF presented a epidermis. However, in 2016, there were no significant difference in the skin color over all thinning methods. It is known that the peaches epidermis color is highly affected by the genotype[15], green pruning management [16] of fruit maturation [17]. Metamitron is expected to act in the electron transport chain, blocking the triplet chlorophyll synthesis that reacts with oxygen, forming singlet oxygen and reactive oxygen species, and consequently promoted pigments destruction[Reference]. {the discussion for the results of 2015, 2016 and their differences}". The discussion should be consistent with that of firmness. They explained "Because there were differences between evaluated crops." So it is possible that that is the reason of significant difference in the color in 2015. Regarding Fig.1 and 2, there are no s.d. bars. In the figure captions, CV is explained although the values are not presented. In Fig.2, the vertical axis of soluble solids may be preferred to start from zero; but most variables should be presented with box plots. Bar plot is not preferred to pH and Hue. Regarding Fig.1-C, the unit of firmness is "Newton"; that seems strange (N/mm²?). Additionally, I'm not sure that the values of Hue in the HSB color space should be compared. In our field, the plot of La*b* color space is usually compared because the color space is designed so that the Euclidean distance of two colors in the space indicates the difference of the colors of human sense. At least, Fig.1-A obviously misleads the readers.	The authors did not understand the question about the harvest of 2014. But, we inserted the information of the age of the orchard and also that the practice of manual thinning were always performed in these plants. As it is a perennial crop, this orchard is known to be handled year after year, since 2006, the year it was implanted. Thus, in 2015 when the survey was started the peach orchard was nine years old. For a better understanding of the conclusion, the authors modified this part of the work. The conclusion has been modified to "The use of metamitron in peach chemical thinning did not affect the fruits soluble solids content in relation to manual thinning. The other physico-chemical characteristics do not maintain a direct relation with the treatments, being able to be altered because of the harvest." The paragraph on the coloring of the epidermis of peaches has been revised. The reviewer's suggestion was inserted in the text. In the discussion about the fact that the metamitron change is variable, the authors will review that the metamitron can degrade the chlorophylls (pigments present in the fruits) present in the fruits, and in this way, the change of coloration to yellow-green color to yellow-orange. For the discussion of the coloration of the epidermis was added the reference as requested. About color : "They explained "Because there were differences between evaluated crops" But, the works executed in other cultures, such as the apple tree, species with more time that work with metamitron. These authors did not show results on the alteration of the epidermis coloration of the fruits with the effect of the metamitron. For example: - McCartney SJ, Obermiller JD. Comparison of the effects of metamitron on chlorophyll fluorescence and fruit set in apple and peach. Hortscience. 2012;47:509–514. - Petri JL, Couto M, Gabardo GC, Francescato P, Hawerth JF. Metamitron replacing carbaryl in post bloom thinning of apple trees. Revista Brasileira de Fruticultura. 2016;38(4):e-903. - Goulart G, Andrade SB, Bender A, Schiavon AV, Aguiar GA, Malgarim MB. Metamitron and Different Plant Growth Regulators Combinations in the Chemical Thinning of 'Eva' Apple. Journal of Experimental Agriculture International 2017;18(2):1-6. - Gabardo GC, Petri JL, Hawerth FJ, Couto M, Argenta LC, Kretschmar AA. Use of Metamitron as an apple thinner. Revista Brasileira de Fruticultura, 2017.39(3),E-514. The CV was removed from the title of the figures.



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	The axis of the soluble solids was started at zero. The variables pH and Hue were put again in tables, because according to the reviewer these variables in bar graphs are not suitable. Increased graphics - bars in fig. 1 and 2. The authors state that the equipment used to carry out the firmness of pulp was “manual penetrometer (TR Turoni – Italy) brand, model 53205 with 8 mm tip, at two opposite points in the equatorial region of the peeled fruits, the results were expressed in Newtons (N)”. The results of this variable are expressed in Newtons, as can also be observed in the articles: - Goulart et al (2017) - Metamitron and Different Plant Growth Regulators Combinations in the Chemical Thinning of ‘Eva’ Apple Trees: http://www.journalrepository.org/media/journals/JEAI_51/2017/Oct/Goulart1822017JEAI36809.pdf - Pavanello et al. 2012 - Chemical thinning of plum fruits with ethephon (http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0103-84782014001001766). The hue is a variable used to compare the color of the fruits in fruit thinning works. The hue was used for this purpose, for example: - Pavanello et al. 2012 - Chemical thinning of plum fruits with ethephon (http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0103-84782014001001766).
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