



SDI Review Form 1.6

Journal Name:	Journal of Experimental Agriculture International
Manuscript Number:	Ms_JEAI_39849
Title of the Manuscript:	Development and productivity of tomato plants under water deficit
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:

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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)
Compulsory REVISION comments	The research findings in the article are an interesting contribution in the field of water use and irrigation management in table tomato under greenhouse conditions. The subject of this study is within the scope of the journal. The data and methodologies presented in this paper appear sound. The materials and methods section should include information about the greenhouse atmosphere conditions. The statistical analysis should include an analysis of variance to a better understanding and discussion of results. Recognizing, however, the importance of the study for the knowledge of irrigation management in table tomato production, I consider that, after making the corrections that are suggested below, the article is acceptable for publication. Line 53: correct "Köppen" Line 55: Please provide a reference for the Soil Classification System What were the atmosphere conditions of the greenhouse during the study? Please relate the 10 kPa water tension value for FC with the soil physical characteristics. Why not tensiometers at two depths (to control percolation, depth of water extraction and/or irrigation duration)? The regression analysis, although well presented and discussed, should be complimentary to an ANOVA. The ANOVA would help understand the significance (or not) of the differences obtained, particularly for number of fruits / plant and yield at 15 kPa and 25 kPa tensions. Furthermore, author(s) state that "... data of the evaluated characteristics were submitted to analysis of variance (ANOVA) at the level of 5% of significance." (line 120) Line 126: replace supply by availability.	All suggestions have been accepted and the corrections are marked in yellow in the text. However, the authors do not see the need to present ANOVA to complement the regression analysis. It would be two analyzes to explain the same results. Therefore, an analysis of ANOVA would be redundant, and the authors consider unnecessary the presentation of this analysis. It was corrected. The reference has been entered. Greenhouse conditions were entered. The soil used in this study was classified as Latosol. In general, for Latosols, which are very weathered tropical soils, 10 kPa FC is used. Although the soil presents a great quantity of clay, it is a clay of low activity that has great retention force, causing in less water availability for the plants. In addition, due to their granulometry, the Latosols have similar behavior to the sandy soils as the availability of water to the plants. In this context, for Latosols 10 kPa FC is used. The coherence in the use of 10 kPa FC in Latosols can be observed in the results of this study, therefore, the greater productivities were found using the tensions of 15 and 25 kPa. However, if we had used 33 kPa FC, we would not have found the maximum productivity for the tomato crop in this study. In this experiment we used localized drip irrigation. When using localized irrigation systems, the tendency is that most of the plant roots will be superficially close to where there is greater availability of water. Therefore, it was expected that most of the absorbent roots would be concentrated on the soil surface, which was verified with a pre-test, where it was verified that the depth 20 cm had the largest number of roots. With this result, we defined that 20 cm depth was where there was greater extraction of water by the plant. Regarding the duration of the irrigation, a calculation was made to determine the irrigation time in each tension used, based on the flow of the dripper and the volume of soil. Thus, we did not use the tensiometer as an indication of the duration of irrigation, but rather as an indication of the moment of irrigation. Unfortunately we did not have sufficient tensiometers to install at two depths in order to control percolation of water, and since this was not the focus of our work, we concluded that using the tensiometer in only one depth would be sufficient to meet the objective proposed by the work. The authors disagreed with the need to include ANOVA, as explained above. It was replaced.



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Minor REVISION comments		
Optional/General comments		