



SDI Review Form 1.6

Journal Name:	American Journal of Experimental Agriculture
Manuscript Number:	2014_AJEA_10802
Title of the Manuscript:	EFFECTS OF CLIMATE CHANGE CRITICAL FACTORS ON THE SEEDLING GROWTH AND DEVELOPMENT OF MAIZE (<i>Zea mays L.</i>)
Type of the Article	original scientific paper

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.

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PART 1: Review Comments

	Reviewer's comment	Author's comment <i>(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)</i>
Compulsory REVISION comments	REFERENCES: The References contain very many mistakes. These must be corrected , a scientific paper should handle references in a precise and correct way. The errors are of three types: 1)Some items mentioned in the List of References do not appear in the text: Adejare&Umebese, 2008; Byerlee &Eicher, 1997; Chenge&Johnson, 1994; Crossley et al., 2002; Food and Agricultural Organisation of the UN, 2001; IPCC , 2008; United States Department of Agriculture, 2010. 2) Some are listed in the references, and in the text, but with spelling mistakes: - Apel and Hart (2004) in List of References, Appel and Hert (2004) in text p11, BUT none of these are correct, the correct names are Apel and Hirt (2004). - Hangarter (1997) correct in text p6, but misspelled in list of References (p 14: Hangeter (1997); - Hopkins and Hunner (2004) in the List of References, but referred to Hopkins (2004) in pages 3, 5 and 11 - Okunlola and Adelusi (2012) in List of References, but Okunlola et al. in text (p.4, twice) 3) Some authors are referred in the text, but not mentioned in the List of References: - p1, Daintith and Martin, 2005 - p2, Kerr et al, 2005 - p9, Remison, 1997 - p10, Noggle and Frits, 2003 INTRODUCTION: P6 line 133 -The objective of the paper should be briefly summarised here,	



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	something like: By simulating various climate change scenarios the authors try to estimate the impacts of these scenarios on crop growth components. The scenarios are set up by treatments related to changed temperature and light (applying chicken nets over planting boxes), to water (watering the plants daily, or only once throughout the experiment), and to soil type (each experimental setting was applied with four soil types) with various PH levels and NPK contents. Using these experimental settings the impacts on crop growth are estimated and interpreted for future climate change alternatives. CONCLUSION: p12: This section is far too short, being only of two lines. The authors should explain here their findings, and their implications related to climate change. The results of the paper are presented in rather descriptive way. The authors describe each case separately (SN, DN, WN, WN1), it is difficult for the reader to compare the impacts of light, temperature (treatments SN, DN WN), water (treatments WN and WN1) and soil type. Results should be presented in a clearer way, using charts and summary tables for impacts of light and temperature, impacts of water and impacts of soil type, separately (These comparative charts and tables could be placed in the RESULTS section). The authors should clarify the linkage between the experimental results and climate change, something like: ..Due to climate change we expect drought and high temperatures, These impacts are shown by crop growth results of the treatments SN, DN and WN for light and temperature, and WN and WN1 for water. The findings show, that the impacts differ according to the soil types. In clay soils the impact of reduced water is... , while the impact of higher temperature and light levels are... In loamy soils,,, etc. Therefore a similar climate change may have a similar effect, i.e. crop yield changes of The implications are.... (please explain what you can say about climate change impacts here).	
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<u>Minor</u> REVISION comments	- There are a few mistypings, but they should be corrected only after the major revision issues are sorted out. - Tables should be numbered by Arabiv figures: Table 1, Table 2, Table 3... (and not Table I, Table II, Table III...) - In Materials and Methods, p 7 line 147 a sentence would be needed to explain how light and temperature were measured in planting boxes. - In Materials and Methods, p 8 line 155: please explain why it is enough to have only one treatment with low water supply (WN1) and why it is not necessary to test this option with SN and DN settings. - p10, Results and Discussion: please explain briefly the contents of all tables: what do they contain, and what conclusions can be stated? Whenever you explain some conclusions, please always refer to which table shows these values. - p11, line 213: you refer to weight of 1.80g here. Please mention which table contains this number. - please compare input values (soil nutrient content, temperature values, light values) to output values (dry and fresh weight, their ratio, leaf area, plant height..) to see if there is a true relationship between input values and yield components. These comparisons could be done by an x-y chart, or fitting regression lines.	
<u>Optional/General</u> comments	Besides tables some of the results should be presented in charts too. New charts of comparing various experimental settings and their outputs would be nice, but some of the tables (1 to 8) should be presented in graphical form, too.	

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