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Journal Name:	**International Journal of Plant & Soil Science**
Manuscript Number:	**2013_IJPSS_6870**
Title of the Manuscript:	**Irrigation strategies for optimizing water table contribution to soil moisture storage and water use of pepper in a humid tropical zone of Nigeria**
Type of the 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	**1. The English needs major improvement** **2. Add a map of the study area** **3. The acronyms are not consistent across the paper. For surface runoff, for example, R, Rs, and Ro have been used.** **4. The methods implemented for estimating different components of water balance are not clearly defined.**	
Minor REVISION comments	**1. L 15: No need to mention Cg, it is defined in the next line** **2. L 24: How do you argue that water use efficiency was enhanced under weekly irrigation if the saving in water under biweekly irrigations (24%) is much larger than the yield decrease (8%)?** **3. L 29-30: moisture content levels are not clear** **4. L 31: Be consistent in reporting the results (WUE values for each irrigation regime, not the average** **5. L 34: define VPD (vapour pressure deficit)** **6. L 95: Study periods are confusing** **7. L 116: No need to mention SWD, it is defined in the next line** **8. L 119: How many samples were taken at each depth?** **9. L 122: modify the equation to: 1.0 – ETa/ETo** **10. L 123: How did you estimate ETa and ETo?** **11. L 126: How many observation wells, at what distance to the research field?**	

	12. L 164: it is usual for WB equation to have inflows on one side of the equation and outflows on the other side **13. L 186: R, Ro, or Rs? Cg or D? ET or ETa?** **14. L 195: Did you adjust the Kc for the local climate of the study area? If yes, how?** **15. L 200: What is the approximate distance between the weather station and the research site?** **16. L 223: You mentioned that ETa was estimated as Kc*ETo. If that's the case, ETa/ETo represents the Kc that you obtained from the FAO56! Did you estimate ETa using a different method? Capillary rise, which is an unknown in this study, appears in all other equations, so you could have not used them.** **17. L 242: This is the first time you define WAT after using it multiple times.** **18. L 260: water satisfaction index?** **19. Table 1: Porosity of 81%? This is unbelievably high! If BD is 1.24 as reported in the table, porosity will be about 51%.** **20. Table 1: What do you mean by water holding capacity? How did you estimate it? It is usually the difference between FC and PWP.** **21. Table 2: How did you estimate water use efficiency? Based on my estimates, the values should be 0.19 for 14-day and 0.14 for 7-day irrigation regimes, so you see an increase in WUE with less frequent irrigation, as it is expected.** **22. Table 4: If ETa is zero, CWSI will be equal to one. If ETa is larger than ETo, CWSI will be a negative number. But how did you come up with a CWSI of larger than unity (2.11, 3.10, etc.)?**	

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	23. Figure 5: The parameters in Figure 5 have significantly different ranges of values. It is better to show them in separate graphs or on different ordinates.	
Optional/General comments	**1. L 43: Perhaps you want to add pepper as a keyword** **2. Add a few photos of the research field** **3. L 114: this method of installation results in soil compaction and reduces the accuracy of collected data. The best approach is to drill a hole with an auger**	

Note: Anonymous Reviewer