



SDI Review Form 1.6

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:

(<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)
Compulsory REVISION comments	The study itself is an interesting topic, especially it tried to examine the contribution of groundwater to the ET of a pepper crop grown in dry seasons. However, there are some concerns need to be addressed before considering for publication: 1. English writing needs improvement. 2. "Water table" should be "groundwater" 3. For MM section, the method that is not used in this study should be deleted, such as Lines 149-162. Detailed information should be supplied with the root sampling and monitoring the growth and final yield of the crop. 4. Mis-understanding and calculation of potential ET and actual ET, which undermines the credibility of the results from this study. There are also mistakes in the equation development (Lines 164-188) and the definition of CWSI. The FAO equation calculate the reference ET, called E_{To}. Potential ET for a certain crop can be calculated using the reference ET (E_{To}) multiplied by crop coefficient, K_c, to get the potential ET of the crop (E_{Tp}). For actual ET of a crop (E_{Ta}), you must directly do the measuring, or to calculate it from E_{To}, but the crop coefficient must be corrected with the soil moisture conditions. Without water deficit, the E_{Tp} can be taken as the actual ET, but when there is water deficit, actual ET is generally lower than the E_{Tp}. Personally I think it might not be possible to accurately estimate the groundwater contributions to ET just using the FAO equations to calculate the actual ET just use the K_c from the FAO book. If the authors want to do so, they must use equations to calculate the real K_c based on the canopy size and soil moisture conditions.	
Minor REVISION comments		
Optional/General comments		

Note: Anonymous Reviewer