



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:

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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	<p>Review of manuscript “Irrigation strategies for optimizing water table contribution to soil moisture storage and water use of pepper in a humid tropical zone of Nigeria</p> <p>The manuscript presents data quantifying the contribution of water table via capillary rise and irrigation to soil water content, ETc and agronomic parameters of a pepper crop in Nigeria.</p> <p>The major reasons are:</p> <ul style="list-style-type: none"> - The methodology is incomplete and does not allow the reader to fully understand the work - The paper is not properly written and many mistakes appear in the text, in relation to, (i) symbols that are not used consistently, (ii) cite to tables that refer to the wrong ones, (iii) unfinished sentences as well as (iv) poor English. - One of the major indices used in the paper to quantify water stress is the “CWSI defined by the authors as: $CWSI = 1 - ET_a / ET_o$. This index is incorrect; the CWSI is a crop water stress index based on measurements of canopy temperature in relation to a well irrigated crop. In this paper, ETa is the crop evapotranspiration calculated according to the FAO methodology and ET_o is the reference evapotranspiration. Authors call ET_o “potential evapotranspiration” which is an outdated terminology. The ratio of ET_c/ET_o is the kc and the 	<p>The methodology is complete The paper is written well and the mistakes identified were regretted but corrected symbols were corrected for consistency Tables citations were corrected The use of English was improved.</p> <p>One of the major indices used in the paper to quantify water stress is the “CWSI was wrongly defined as: $CWSI = 1 - ET_a / ET_o$.</p> <p>In its place, the relative water use and evapotranspiration deficit were computed to reflect the magnitude of water deficit experienced by pepper plants</p> <p>ETa is the crop evapotranspiration calculated according to the FAO methodology and ET_o is the reference evapotranspiration.</p> <p>ET_o is corrected to read reference evapotranspiration”</p> <p>- Pepper growth is not properly measured as</p>



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	<p>value (1-kc) is a meaningless index.</p> <ul style="list-style-type: none"> - Pepper growth is not properly measured as units are expressed as g?? - The calculation of water table contribution is incorrect. This calculation is based on a water balance where ETc is estimated. Authors assume that ETc is the maximum evapotranspiration; if the crop is suffering water stress, ETc would be less than the calculated by FAO and the estimation of capillarity flux will be incorrect. - Results are very short and very difficult to understand <p>In conclusion, since the methods used to quantify major parameters are not correct.</p>	<p>units are expressed as g??</p> <ul style="list-style-type: none"> - <p>The calculation of water table contribution is based on a water balance where ETc is estimated.</p> <p>ETc is the actual and NOT maximum evapotranspiration;</p> <p>The maximum evapotranspiration (ETm) is obtained for a crop that does not suffer water stress.</p> <p>Results are very short and very difficult to understand The Authors disagreed with this view</p> <p>Relative water use = ETa/Eo</p> <p>Evapotranspiration deficit (ET-d) was calculated as the difference between the maximum evapotranspiration (ETm) of well-watered plants and the actual evapotranspiration (ETa) calculated from water balance from the experimental site . The ET-d was normalized by divided by the saturation deficit (Δe) of the air and was used as an index to reflect the magnitude of water deficit experienced by the crop.</p>
<u>Minor</u> REVISION comments		
<u>Optional/General</u> comments		