



SDI Review Form 1.6

Journal Name:	Asian Journal of Soil Science and Plant Nutrition
Manuscript Number:	Ms_AJSSPN_42878
Title of the Manuscript:	COMPARISON OF DIFFERENT INFILTRATION MODELS USING FIELD MEASURED INFILTRATION RATES OF A SANDY SOIL IN ZING LOCAL GOVERNMENT AREA OF TARABA STATE.
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:

(<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 manuscript. It is mandatory that authors should write)
<u>Compulsory</u> REVISION comments	- In general, the MS should be refined (abstract, material and method, conclusion) and rearranged of the section. Please make clear that all evaluated models resulted the relative high of coefficient determination ($R^2>0.99$) and it was not different significantly among the models. Consequently, these models can be recommended to predict the infiltration rate. - Please change the term of cumulative infiltration to infiltration rate (cm/hr). The infiltration rate is always measure in a certain time - The presented soils properties in line 117-128 (Results and Discussion) should be move to section of Materials Methods. This belong to characteristic of studied area (not as the results of experiment) - The soil texture of studied area is sandy loam (line 125), please adopted in the title - Please update the references to latest	
<u>Minor</u> REVISION comments	Please Change the Title: INFILTRATION MODELS EVALUATION FOR A SANDY LOAM SOIL IN ZING, TARABA STATE. Abstract : Please refine. Predicting the infiltration characteristics for soils is crucial for proper management and sustainable use of soil and water resources ~~and~~ for prevention of soil erosion. The study was carried out to evaluate the infiltration models by measuring ~~with observed~~ the field infiltration rate ~~data on in the loamy~~ sandy loam soils in Zing ~~under local conditions~~. Kostiakov, Modified – Kostiakov and Horton infiltration models were evaluated by comparing ~~used to compare~~ the measured and predicted ~~cumulative~~ infiltration rate of the soils ~~of the study area~~. Fifteen infiltration runs were made by ponding water into double ring infiltrometer which was used to carry out the measurements. Parameters were developed from measured infiltration data and laboratory analyses of soil samples. Horton model with a RMSE of 0.0372 and R^2 value of 0.999 closely predicted the measured infiltration even though, the other models also provided good prediction in line with the field measured ~~cumulative~~ of infiltration rate. Keywords: Infiltration models, Infiltration rate, sandy loam Line 53. This study is carry out. Please use past tense (was carry out) Table 2. Line 132-133. Please add the explanation of parameters (A, K, etc) . plase see line 81 (is that the same or different) CONCLUSION The three evaluated infiltration models resulted the high of coefficient determination ($R^2>0.99$)>. ~~Horton model with a RMSE of 0.0372 and R^2 value of 0.999 is relative closest to the measured infiltration rate. although the other models provided good overall agreement with the field measured cumulative infiltration depths.~~ All models provided good overall agreement with the field measured infiltration rate and suitable for predicting the infiltration rate under the field conditions on sandy soils ecosystem.	Commented [TS1]: How is the statistically comparison between the Models based on R^2 ?? It the different is too small and may not different significantly
<u>Optional/General</u> comments		