



SDI Review Form 1.6

Journal Name:	Archives of Current Research International
Manuscript Number:	Ms_ACRI_35602
Title of the Manuscript:	Comparison of Infiltration Capacities by Field Measurement and Selected Empirical Models for Irrigated Agriculture
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:

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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 Title: "Predicting" is better to be used instead of "Comparison of". (2) Abstract: Before "From this study, ...", this sentence is better to be added: "Also, four equations were obtained to predict the infiltration capacities from these models." (3) Item 2-5, Statistical Analysis: It is better to be rewritten as: "The measured values of cumulative infiltration were plotted versus the values obtained by each model. Using linear regression analysis, four equations were obtained to predict the infiltration capacities from these models. An equation for each model." (4) Item 3, Results and Discussion: 4-1- Why 3.1 Field? While there are no other items. There is no need to sub-titles. 4-2- Why the word "Production" is used in sub-title 3.1? I see that it is not needed. 4-3- Head of table 1 is not clear. It can be "Determination of the Variables of the Selected Empirical Infiltration Models by Field Measurements".	Agreed and corrected Agreed and corrected Agreed and corrected Agreed and corrected Correction effected as suggested

	Also, the head of the last column is too long and the stated unit is not suitable for all variables. So, the head can be: "The Obtained Values" only – and the units can be added beside each range of values. e.g. K 0.58 – 0.585, /hr 4-4- Head of table 2 is too long. It can be "Measured and Predicted Accumulated Infiltration". 4-5- Figures 1, 2, and 3: There is no need to write the word "Graph of". 4-6- Where are the data used to draw figures 1, 2, 3, and 4? 4-7- Figures 1 and 3: Infiltration Depth versus Time in Plots A and B, with $R^2 = 0.67$ and 0.76 Figures 2 and 4: Cumulative Infiltration Depth versus Time in Plots A and B, with $R^2 = 0.99$ The paragraph (discussing these figures) refers that there is another graph for "Infiltration Depth versus Time in Plot C, with $R^2 = 0.78$", <u>where is this figure?</u> Similarly, there is another missed graph for "Cumulative Infiltration Depth versus Time in Plot C, with $R^2 = 0.99$", <u>where is this figure?</u> 4-8- Figure 6 and its discussion are preferred to be before Figure 5. 4-9- Figure 5 (a, b, c, and d) is important for this study. In its current form, the obtained equations show the empirical infiltration model as a function of the	Correction effected as suggested Correction effected as suggested Graph added as suggested We believe the graphs are sufficient demonstration of the data. Figure added as suggested Correction effected as suggested
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	observed (actual) infiltration. BUT, a good finding of this study is to predict the (actual) infiltration as a function of the empirical infiltration model. That can be made for each model by assigning x-axis for the empirical infiltration model, and assigning y-axis for the predicted (actual or observed) infiltration. For the 4 models, R^2 will be 0.9997, 0.9892, 0.9852, and 0.958 in the same order of the study. 4-10- The obtained 4 equations (to predict the infiltration capacity as a function of the empirical infiltration model) have to be added to the discussion of the figure 5 (a, b, c, and d). (5) Conclusion: It can be added: “Also, four equations were obtained to predict the infiltration capacities from the empirical infiltration models.”	Correction effected as suggested The equations have been added Correction effected as suggested
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<u>Minor</u> REVISION comments	1- Why references are not assigned through the text of the paper? 2- Why do the recent references be only 1 reference 2014 and 2 references 2011?	All cited references have been listed and updated as suggested
<u>Optional/General</u> comments	Minor revision for grammar.	Revision done. Thanks for your useful comments