



SDI Review Form 1.6

PART 1:

Journal Name:	<u>American Journal of Experimental Agriculture</u>
Manuscript Number:	2013_AJEA_5654
Title of the Manuscript:	Changes in rhizosphere concentration of mineral elements as affected by differences in root uptake and plant growth of five cowpea genotypes grown in mixed culture and at different densities with sorghum
Type of the Article	Research Paper

General guideline for Peer Review process is available in this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)

- This form has total 7 parts. Kindly note that you should use all the parts of this review form.



SDI Review Form 1.6

PART 2: Review Comments

	Reviewer's comment	Author's comment <i>(if agreed with reviewer, corrects the manuscript and highlights that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
Compulsory REVISION comments	This study investigated rhizosphere and plant mineral elements under different planting densities, cowpea genotypes, and cropping systems. This study is interesting and fits the readers of the AJEA. The experimental design was adequate and the results were well presented and explained. But I have two major concerns with the current version. 1. Data analysis. It seems that the design was split-plot design, but a three-factorial completed randomized block design might be used. The results could change if a wrong design was used. 2. Results presentation. I feel that too many results were presented in this manuscript. Some non-significant results were also presented in tables, figures. I suggest authors to focus on major results and conclusions in the revision.	• The data analysis was 3-factorial completed randomised block design • The second suggestion was not addressed since by doing so it will leave too many empty pockets in the table and will make it unattractive



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Minor REVISION comments	Minor comments/suggestions.	
	L22: resulting into: resulting in? L75: change objective to objectives L91: There were two “m”s in this sentence. Change m-1 to month-1? L92: what’s the annual precipitation in this region? L108: the genotypes were randomly selected. It would be more useful if they were selected based on certain representative characteristics such as drought tolerance, nutrient requirement, growing length etc. L119-212: the experimental design was not clear here. Was it a split-plot design or a 3-factorial complete randomized design? It seems to be the split-plot design, as the main, sub-, and sub-subplots were described. How many total plots were used? L115: It seems that two monoculture systems were used. Two cropping systems (monoculture of cowpea or sorghum vs. mixed culture of cowpea and sorghum). For element measurements, most of the references cited here were old. Are there any new methods for these element measurements? L133: “Plants were irrigated up to field capacity once every	1. All comments and suggestions under L22, L75, L91, L92 have been addressed as per reviewers suggestions 2. L108 Agreed. But as it is, it also is Ok. 3. This was a 3-factorial complete randomized block design. It may look like spit plot, but it is not. The total number of plots were 88 4. L133: This was a normal practice during the summer period under no dependable rainfall which was the case during the experiment 5. L151: Plants were harvested during such time period because it is the time of maximum nutrient uptake and hence maximum biomass accumulation. Data were also collected at plant maturity where yield and yield components were assessed and analyzed. 6. All suggestions related to tables have been addressed accordingly. 7. Suggestions in Table 2 has been addressed, 8. CV is meant for the main effects



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	three days up to flowering, and once a week thereafter”: what’s the precipitation amount in this region? Was this the normal agricultural practice there? L151: Why were the plants harvested at 67 DAP (early pod development), not at mature? L205: Statistical analysis needs to be clarified. If a split-plot design was used, the corresponding ANOVA should be applied. L224: please give p value $p=$ instead of $P\leq 0.05$ here and other places. Results and discussion These results could be changed if the ANOVA of split-plot design was used. L274, 276: Tables 3 and 5 L316–322: This paragraph should be merged in the introduction section. Table 1. Delete “D: December ... M: March” as they were not used in the table, and add the explanation of “R, Tmax, Tmin, Rs”. Change m–1 to month–1? Table 2. Ca column, no “a”, only “b”, “c” are used.	9. 10. 11. One tithe the etions in Table 3 is that
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	Table 3. CV (%): CV of what? Fig. 4 Why were the values for MC always the same?	
<u>Optional/General</u> comments		