



SDI Review Form 1.6

Journal Name:	American Journal of Experimental Agriculture
Manuscript Number:	Ms_AJEA_24385
Title of the Manuscript:	Influence of some preceded winter field crops on yield and quality of intercropped maize with cowpea under different nitrogen fertilizer rates
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 <i>(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)</i>
<u>Compulsory</u> REVISION comments	Abstract: -Objective(s) need to be re-stated. The one provided is rather "the ultimate goal". In a study of this nature i.e. an experiment, one seeks to for instance, "establish the effect of.....on...; Compare ...among.... etc. - Issue of rows vs ridges needs to be clearly presented . e.g. in line 3 the meaning of "in one row ridge " is not very clear. Does it mean the plot size was one row? How long was the row ? etc - Experimental Design is "A factorial Experiment laid down in split-split plot design" - Significant levels should be indicated for "significant or no significant differences among treatments" Introduction: - Section has several grammatical errors, particularly mixing of tenses - needs addressing. - Background information is rather scanty (e.g. what are the current farmer practices with respect to the factors being examined e.g. what is the common winter crop; Which farmers are being targeted by the study? Smallholders; commercial farmers etc) - Justification of the study needs to be clear / well elaborated. (Some facts are there but information flow needs to be improved) - Objective (s) need re-stating (see comment on objective, under the "abstract" . 4. Materials and Method:	I did most of these corrections. There is native words in Egypt (Rows like line and ridge like the row and hill like hole) I think the LSD value show the significance differences among treatments of the studied traits. I did all my best the common winter crop is wheat for some farmers and the others berseem or faba bean is the common winter crop according to price market and region.



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	- There is need for a detailed and accurate account of what was done, to allow someone to repeat the experiment on their own. E.g.s of issues that require clarification include: How far apart were the ridges; Were wheat and Berseem also sown on both sides of the ridge (Paragraph 3, line 4); At what stages of growth was N applied and was it applied all at once or there was split application (Paragraph 4, line 4); Which were the 10 “guarded” plants, how were they guarded? (paragraph 5) – <i>Will the “guarding” not introduce some bias??</i> - Sub-headings only started on “Nutrient Use Efficiency” and yet before that a lot more info / measured parameters were presented. There is need for consistency. 5. Results and Discussion: - Normally interaction (of factors) effects are reported first. The nature of interaction should be explained, where interaction is significant. - The sub-headings should be informative enough e.g. Instead of just “The preceding winter field crops”, this should read something like “ Effect of preceding crop on ” Land Equivalent Ratio, does not normally require a statistical analysis to determine whether any two LERs are significantly different. It is enough to just compare the LERs and give the correct interpretation .(some definition is provided in M & M of this paper) . - Also under the “The land Equivalent ratio subsection:,Statement “<i>Intercropping cowpea with maize increased LER as compared to sole cultures of both crops..</i>” sounds incorrect since LER computation itself takes into account both intercrop and sole yields of both crops. Also in same paragraph, meaning of last sentence is not clear (revisit definition of Relative Yield). Maybe	I did all my best I did all my best I did most of the corrections Wheat and berseem and faba beans were harvested before sowing maize and cowpea Sorry but the rules of our institute, talking first about the main factors
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	simply say “maize was superior as its RY was higher than that of cowpea in all systems /cases.” Also need to check / ratify interpretation of LER in last paragraphs of the “The land Equivalent ratio” subsection. - May reconsider placement of Table 2 or Fragment it (by sets of parameters as already in the “big” table) so that the text is ‘not too far away from the table’. - It appears there is more info in Table , than what is explained / interpreted in the text -Land equivalent coefficient (LEC) is defined and explained, but no interpretation of own results on this parameter is provided. -Meaning of Partial factor Productivity and its application in the study is not clear. In first sentence under Nutrient Use Efficiency, it is defined as (NUE-PFP)? -Figure 1: Meaning of legend not clear i.e meaning of 100%-75.0% and 85.5%- 75.0% . Also from this fig. how does one tell whether or not there is significant interaction among factors in determining NUE.	then interactions. I did You are right but it is favourable for the main factors. I did most of corrections I have to I have to I did all my best
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	- Where P levels are quoted e.g. under the “NUE” subsection, one expects mention of significant or no significant differences or significant increase and not just an increase. etc	Yea... NUE is widest definition it calculated as $NUE - PFP$. This is widest range between 100 and 75% and narrowest range between 87.5 and 75% for calculating $NUE - PFP$.
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Minor REVISION comments	1.Title could be improved to something like “Maximizing nitrogen and land use efficiencies of maize-cowpea intercrops preceded by different winter field crops” 2., Abstract: - Line 8. Is this yield of maize or cowpea? - Line 14. “Farmers’ benefits” could be replaced by “The highest yield benefit” 3. Introduction: - First sentence too wordy and not quite clear. - 3rd paragraph line 2 Use of forward slash is misleading. Diverse and complex do not mean the same. - First sentence of paragraph 3: cannot have “although” and “however” in same sentence. 4. Materials and Method: - What is meant by “mechanical” analysis – good to indicate what it is, since it is not a commonly used type of analysis. ((Line 3, para- 1) - Double check if Berseem and wheat cultivars have the same name “Giza”. It is unusual for two different crops. - Provide the “specific Rhizobium” (Para 3 , line 2) 5. Results and Discussion: Under the “Land Equivalent ratio” subsection. Lowest and highest LER values are quoted as 1.37 and 1.50 respectively in the text, but from Fig. 2 these values are 1.36 and 1.47, respectively	I modified the title according to yield quality of maize Maize It deleted It deleted It deleted It deleted Yes, Berseem and wheat were produced by Agricultural Research Center in Giza city specific Rhizobium of cowpea is <i>Rhizobium melitota</i> I did all my best
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<u>Optional/General</u> comments	The study is quite comprehensive, taking into consideration several parameters. However, not all land use efficiency parameters used are commonly used, hence there is need to explain / interpret these parameters in a manner that will allow readers to understand. For example, in Fig 3, what do the “hemi-spherical shapes” connecting the two relative yields depict?	
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