

Review Form 3

Journal Name:	Asian Journal of Agricultural and Horticultural Research
Manuscript Number:	Ms_AJHR_129568
Title of the Manuscript:	Effect of Spatial Arrangement on Grain and Fruit Yield of component crops in Maize/Okra Intercrop in Kilifi County, Kenya
Type of the Article	Original Research Article

PART 1: Comments

	Reviewer's comment	Author's Feedback <i>(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.	This manuscript examines the impact of spatial arrangements on maize and okra intercropping in Kilifi County, Kenya. It makes a significant contribution to agricultural practices in resource-limited areas by optimizing land use and enhancing crop productivity. The findings provide practical insights for farmers to achieve higher yields of both maize and okra, addressing food security and promoting economic sustainability.	Correct
Is the title of the article suitable? (If not please suggest an alternative title)	The title is appropriate but could be more concise: "Optimizing Maize and Okra Yields through Spatial Arrangement in Kilifi County, Kenya"	The objective of the study was not about 'optimization' through spatial arrangement, but because farmers in Kilifi County, Kenya have been mixing maize and okra intercrops in random mixtures with inconsistency in plant density, the study was conceived to look at correct planting pattern that will maximize benefits of intercropping the two crops. This called for a study to see whether different patterns have effects on yields of the component crops. Before the patterns are adopted by farmers. The optimization in the study was on land use and resource utilization, by utilization available land because farmers in Kilifi are largely small scale.

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<p>Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.</p>	<p>The abstract is comprehensive but following things are recommended to improve its readability and impact.</p> <ul style="list-style-type: none"> ✓ Clearly specify the most significant spatial arrangement for both crops. ✓ Remove redundant information on okra's benefits unless directly tied to the study findings. 	<ul style="list-style-type: none"> ✓ The results indicated that there was no significant difference on grain yield of maize and okra fruit yield. Scientifically therefore, booth spatial arrangement can produce similar total yield results. Hence both arrangement (1:2 and 2:2) can be recommended to farmers. ✓ Okra is relatively an emerging vegetable in Kilifi County, with its consumption now increasing. Thus, reasons and benefits of intercropping okra as a component crop are pegged on the dietary relevance of okra to the people of Kilifi and Kenya in general. The
<p>Is the manuscript scientifically, correct? Please write here.</p>	<p>The manuscript is scientifically sound with appropriate experimental design (RCBD) and robust data analysis. However:</p> <ul style="list-style-type: none"> • The discussion section needs more depth to connect findings with broader agricultural implications. • Explain the practical relevance of insignificant results (e.g., maize yield not affected by intercropping). 	<ul style="list-style-type: none"> • The discussion was based on the specific results from the study. Discussion cannot be outside the results ad the section usually explain why such results were found and possible factors that produced such results. Broad implication has been stated in the conclusion section, and this was also specific to the implication of the results to the targeted farmers in Kilifi County, in relation to dietary needs and optimal land utilization. • Maize, being the staple food for the Kilifi people, the insignificant results indeed justify that farmers can intercrop okra, as an extra crop on the same piece of land with maize, and the main crop - maize - will not be affected, and hence farmers will get more benefits when the two crops are grown together, i.e. staple food and extra vegetable to supplement their dietary needs, and cushion them in case one crop fails.
<p>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</p>	<p>References are sufficient and recent. However, including more literature on intercropping benefits in semi-arid regions can enhance the discussion. Suggested additions:</p> <ul style="list-style-type: none"> • Articles on maize-legume intercropping in low rainfall areas. • Studies highlighting okra's drought resistance in intercropping systems. 	<ul style="list-style-type: none"> • Maize- legume intercropping is discussed on the introduction, with citation from Layek et al., 2018; Dwivedi et al., 2015; Sarker at al., 2013; Mwaoja, 2017; and Bybee and Ryan 2018. • The agro ecological zone (CL -3)where the study was done receive adequate rainfall and the study was done under rain fed. The issues of low rainfall or citing drought resistance in intercropping would have been appropriate if the study was done under irrigation, perhaps in an area with low rainfall.
<p>Is the language/English quality of the article suitable for scholarly communications?</p>	<p>The English language is clear but requires grammatical corrections. Following improvements are highly suggested.</p> <ul style="list-style-type: none"> ✓ Simplify overly complex sentences in the introduction and discussion. ✓ Use consistent terminology, e.g., "spatial arrangement" vs. "planting pattern." 	<ul style="list-style-type: none"> • Agreed. However, spatial arrangement and planting pattern can be used interchangeably. Basically, Spatial arrangement describes the patterns of alternating rows in intercropping.
<p>Optional/General comments</p>	<ul style="list-style-type: none"> ➤ Highlight how the study's findings can inform agricultural policies or extension services. ➤ Include a graphical abstract or summary table of key results for better visualization. ➤ Ensure all tables are self-explanatory with standardized formatting. 	<ul style="list-style-type: none"> • How the study finding can inform agricultural policies has been included in the conclusion. • Tables are self-explanatory

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PART 2:

	<u>Reviewer's comment</u>	<u>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)</u>
<u>Are there ethical issues in this manuscript?</u>	<u>(If yes, Kindly please write down the ethical issues here in details)</u>	