



SDI Review Form 1.6

Journal Name:	American Journal of Experimental Agriculture
Manuscript Number:	Ms_AJEA_22538
Title of the Manuscript:	Impact Of Preceding Legumes And Nitrogen Fertilizer On Soil Fertility And Growth Attribute Of Maize
Type of the Article	Original Research Paper

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 the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<u>Compulsory</u> REVISION comments	Lines 86-89: Soil analysis; why did you choose only four soil properties (pH, EC, TSS, and CaCO_3)? For a study like this where among the objectives was to assess the effect of legumes on soil quality, use of only four parameters as reported is inappropriate. Also, What were the initial soil properties (before planting)? What were the contribution of each legume to soil N? How did the soil N content after legume cropping affected maize response to applied N? Lines 104-106: one cannot discern what you are referring to in Table 2. Table 2 is not properly organized. Table 2 is expected to show effect of increasing N application on emergence, plant height, grain wt., grains/ear for each legume plot and control plot. Perhaps you may need up to four tables to show these effects. The rest of the discussion must then follow this arrangement. The author must also endeavour to give interpretations to the results; not just reporting the results (see comment below for line 100)	Corrected according to the suggestion
<u>Minor</u> REVISION comments	Line 72: did you only incorporate sesbania? What about the other legumes What plant spacing did you use for legumes and maize? Lines 81 and 82: you counted the number of plants in three randomly selected 1m-row lengths. How did you convert to m^2? Why	Legumes are use for three different purposes i.e grain ,fodder and biomass . sesbania biomass is completely incorporated whereas only the remains of other legumes are incorporated in soil. Other Correction are made according to reviewer suggestion



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	did you prefer this method instead of the quadrat method? Line 92: Why the mention of wheat? Did you use wheat in the experiment? Line 100: What interpretation can you give to the observation of higher CaCO₃ content in soil incorporated with sesbania? Why don't you place the Tables immediately before or after the section discussing them? Table 1 and 2 are about two pages down the page where they were discussed. Line 104. Please indicate that the difference was not significant. The conclusion is inappropriate for the following reasons: (i) No nutrient analysis was made, so how can you conclude there were reduction in nutrient losses. Reduce nutrient losses in terms of what? Efficiency of fertilizer uptake and use? Leaching losses? (ii) Reduced fertilizer cost? What is the recommended fertilizer for the soil or region under study? Compare this with the 120kg N/ha rate observed for higher grains per ear. (iii) Actual yield data was not recorded (iv) The trial was only conducted once. So why conclude that it improved maize yields on a sustainable basis?	
<u>Optional/General</u> comments	The study is an interesting one that tries to investigate the effects of green manuring or residual effect of legume cropping on maize response to N fertilizer application (in a wheat-legume-maize rotation). In order to be meaningful as a scientific contribution to the body of knowledge on the use of legumes in crop rotations, the author must explain the methodology, present and interpret the results explicitly and draw conclusions from the findings, not what he/she perceived.	Suggestion incorporated