Review Form 3

Journal Name:	Asian Journal of Research in Crop Science
Manuscript Number:	**Ms_AJRCS_128747**
Title of the Manuscript:	**COMPARING EFFECTS OF LEGUME INTERCROPPING AND GREEN LEAF MANURING ON PERFORMANCE OF MAIZE AND RESIDUAL SOIL PROPERTIES**
Type of the Article	**Research**

PART 1: Comments

	Reviewer's comment	**Author's Feedback** *(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)*
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.	**Useful research article on improving maize productivity of small holder farmers of Nepal through intercropping with legumes and green leaf manuring. However, a careful revision of manuscript is required before publication.**	
Is the title of the article suitable? (If not please suggest an alternative title)	**Yes**	
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.	Comprehensive with some modifications. Fertilizer doses mentioned in the abstract does not match with the dose mentioned in materials and methods. Maize yield attributes are not discussed inside the text in result and discussion sections. Increase in soil N and organic matter in a 4–5month crop cycle is tremendous and looks not correct. Legume effect is not added in conclusion to justify the title.	
Is the manuscript scientifically, correct? Please write here.	Need revision as per the standard format of the Journal. Observed many mistakes, mentioned in my review report.	
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.	Authors are citing 50 references and some of them are non-relevant to this article. 10-12 quality references should be sufficient for this article. Focus should be to improve the quality of the research article.	

Review Form 3

Is the language/English quality of the article suitable for scholarly communications?	Need grammatically correction at many places.	
Optional/General comments	**Review Report for the Manuscript no. AJRCS_128747** The author should revise the article as per the standard format of the AJRCS after reading 2-3 recently published articles in this journal. **Abstract:** Fertilizer doses mentioned in the abstract does not match with the dose mentioned in materials and methods. Maize yield attributes are not discussed inside the text in result and discussion sections. Increase in soil N and organic matter in a 4–5month crop cycle is tremendous and looks not correct. Legume effect is not added in conclusion to justify the title. **Introduction:** In the text material, references should be cited in numbers not as author name. (Adhaota Vasica (Malabar Nut), n.d.) is not a correct form of reference cited for Malabar nut (Justicia adhatoda L.). As Justicia adhatoda is a botanical name, it should be in Italic. HUANG et al, 2019 should be written as Huang *et al*. 2019 and better to replace by giving a correct number as per the format of the journal. H. Seran & Brintha, 2010 should be written as Seren and Bretha, 2010 or better to replace by giving a correct number. The use of different legumes as intercrops with maize for enhancing maize yield and improving soil properties is not illustrated well. **Materials and Methods:** Material is OK but methodology is not clear. The authors are mentioning different doses of P and K in abstract and materials and Methods. Why is the author mentioning factorial field experiment and three cropping system, not clear? Plot size is also not clear as 3.0 m x 1.25 m is not equal to 9 m^2 area of an individual plot. Rather than the local name of months for sowing and harvesting, standard English month and date should be used. Nothing is mentioned about the adjustment of intercrops in between the maize or how the green manure crop was applied? Also, the quantity, nutrient contents and method of green manure applied is not mentioned. Initial values of soil phosphorus and potassium is also looking incorrect as either the unit or value some thing is wrong. All soil available N, P and K (initial and after experiment) may be reported in kg/ha. Rather than organic matter, soil organic carbon should be reported as per the standard procedure. **Result:** **Yield of maize as well as intercrop legume is not clear- whether it is g $plant^{-1}$ or kg ha^{-1}?** Yield data should preferably be given in suitable tables with standard units and at correct place withcorrect table number. CV for maize yield is very high. Among soil parameters, available soil N value after experiment is many times high in all treatments including control (sole maize) than the initial value, looking incorrect. Similarly, very steep decline in soil P and K value is difficult to understand without explaining any valid reason for them. Value of organic matter in green manured plot is also very high. Incorrect figure numbers are mentioned everywhere in the article.	

	For anthesis silking interval--interpretation is not correct. Green manuredplots looks significantly differ from control, Frenchbean and soybean. The author is expected to correctly write control as sole maize, maize+cowpea, maize+frenchbean, maize+soybean and Geen leaf manuring-maize. The very finding on the maize yield must be supported by 3-4 earlier work of the other authors. **Discussion** given by the authors does not match with their findings viz. drought tolerance, negative impact of intercropping on maize yield (just reverse to the yield trends reported by the authors), reduced branching of soybean due to light alteration by taller maize (not reorted by the authors in this article), boostingphosphorus availability fromrock phosphate in rice (no link with this article), macro and micro nutrients in *Justicia adhatoda L.* is reported from another research but nutrient contents find by authors are not mentioned anywhere in the article. **Conclusions** – without any input- output or economic study it could not be justified that the GLM in maze is a cost effective and sustainable approach for maize yield improvement. **References:** No need to cite this huge number of references for this small article. Only 10-12 good quality references with their proper citation at correct place will be sufficient. Focus should be to improve the quality of the manuscript, matching the abstract with inside detailed text, improving grammar and sentences etc. as suggested above.	

PART 2:

	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)***
Are there ethical issues in this manuscript?	***(If yes, Kindly please write down the ethical issues here in details)***	

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