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Journal Name:	**International Journal of Plant & Soil Science**
Manuscript Number:	**Ms_IJPSS_76622**
Title of the Manuscript:	**Multivariate Analysis Through Principal Components for Yield Attributing Traits in Indigenous Moringa (Moringa oleifera L.) Germplasm Lines**
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.
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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)*
Compulsory REVISION comments	**SUMMARY OF THE MAIN FINDINGS OF THE STUDY** The manuscript describes a study on the assessment of the genetic diversity of moringa (*Moringa oleifera* L.) genotypes or accessions based on phenotypic or observable traits using multivariate analysis. **HIGHLIGHTS OF THE LIMITATIONS AND STRENGTHS OF THIS STUDY** The title of this study is interesting but it should be recast more carefully. The authors should look at the suggested title in the reviewed manuscript. There are several draw backs in the manuscript. The abstract of this study requires restructuring, including the wrong application of grammar. I do not have any problem with the introduction because it is sizable enough, although the authors need to look at the grammatical errors and correct them accordingly. **MATERIALS AND METHODS**: In the Materials and Methods section, the authors should correct the grammatical errors accordingly. In Table 1, the titles of the various columns should be re-visited and recast; please, look at the reviewed manuscript for corrections. In the Materials and Methods section, I feel that this statement "**Principal Component Analysis (PCA) is an important multivariate method in modern data analysis because it is a simple, a non-parametric method for extracting relevant information from confusing data sets and it was applied for the assessment of genetic diversity within moringa genotypes**" should be in the introduction section. Furthermore, this statement "**The PCA analysis reduces the dimensions of ~~a~~ multivariate data to a few principal axes, generates an eigenvector for each axis and produces component scores for the characters (Massay, 1965; Jolliffie, 1986)"** should be in the introduction section or used to back-up the results in the results and discussion section. There is a need to further polish the manuscript including more experimental details and a better description of experiments and rationale behind them. **RESULTS AND DISCUSSION** In this section, the authors mentioned in a statement "**Twenty accessions of moringa collected from various parts of Telangana were evaluated for different morphological and biochemical traits"**. Can the authors provide results for the biochemical traits? The authors stated that there were observations on morphological characters. However, i did not see any measurements on morphological observation. There should be tables on results having these measurements. The authors made this statement "**observations on morphological, characters *viz.,* plant height (cm), stem girth (cm), leaf length (cm), number of leaves per rachis, length of leaf rachis, number of flowers per inflorescence, length of the pod (cm), pod girth (cm), pod weight (g), number of pods per plant, number of seeds per pod, yield per plant (kg) and yield per plot".** This statement should be recast. I would suggest the statement to be in this form: The Observations on morphological characters, which include plant height (cm), stem girth (cm), leaf length (cm), number of leaves per rachis, length of leaf rachis, number of flowers per inflorescence, length of the pod (cm), pod girth (cm), pod weight (g), number of pods per plant, number of seeds per pod, yield per plant (kg) and yield per plot were recorded. Furthermore, the authors revealed that the accessions exhibited wide variability for morphological characters such as tree shape, tree nature, the colour of bark, young shoot	

	colour, foliage density, nature of branchlets, ~~branch lets,~~ leaflet shape, leaflet apex, the colour of calyx and pod maturity. However, there is no experiment shown in this manuscript to show the results on tree shape, tree nature, the colour of bark, young shoot colour, foliage density, nature of branchlets, leaf shape, leaflet apex, the colour of calyx and pod maturity. In addition, there is no result to draw this conclusion. In addition, the authors said that four morphological descriptors *viz*., duration of plant, type of planting material, the shape of corolla and shape of calyx did not reveal any variation among the 20 genotypes. However, there is no result to prove this statement. The authors revealed that the traits that were showing variations revealed that most of the accessions possessed phenotypic variation among them. I would like to know how they arrived at this remark. Are they referring to the traits in Table 2 or the traits in the preceding paragraph? What traits are they referring to? I feel this statement "**PCA is a well-known method of dimension reduction that can be used to reduce a large set of variables to a small set that still contains most of the information in the large set (Massay, 1965; Jolliffie, 1986)"** should be in the introduction section. The Rader in Figure 1 is difficult to explain; therefore I would suggest that the authors put this result in a bar chart for proper clarity and explanation. The authors should re-visit the Plates at the review manuscript and effect the corrections. **CONCLUSION** The earlier stated preamble should be avoided and the conclusion should be straight to the point. I suggest that the conclusion could be "**The prominent characters coming together in different principal components and the contribution in explaining the variability has revealed the need to adopt these characters or traits while carrying out a breeding programme".** **REFERENCES** Corrections should be made on the references. I would suggest to the authors to look at the corrections at the review section.	
Minor REVISION comments	The authors kept using genotypes and accessions together in the manuscript. They should choose one of them to be used in the paper and be consistent with it.	
Optional/General comments	The entire manuscript should be recast.	

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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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