Review Form 1.7

Journal Name:	Annual Research & Review in Biology
Manuscript Number:	**Ms_ARRB_112522**
Title of the Manuscript:	**Molecular characterization of mango (Mangifera indica L.) cultivars using SSR markers**
Type of the Article	

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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 **1. Is the manuscript important for scientific community?** (Please write few sentences on this manuscript) **2. Is the title of the article suitable?** (If not please suggest an alternative title) **3. Is the abstract of the article comprehensive?** **4. Are subsections and structure of the manuscript appropriate?** **5. Do you think the manuscript is scientifically correct?** **6. Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.** **(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)**	Molecular characterization of mango (Mangifera indica L.) cultivars using SSR markers is a process that uses molecular markers to identify and distinguish mango cultivars based on their DNA. This method is commonly used by researchers, plant breeders, and farmers to ensure the accuracy of cultivar identification and to develop better plant breeding strategies for future cultivation. Simple Sequence Repeat (SSR), also known as microsatellites, are short nucleotide sequences containing 1-13 base pairs repeated in tandem within the DNA. SSR markers are commonly used to study genetic diversity and are ideal tools for cultivar identification due to their high polymorphism and reproducibility. The molecular characterization process starts by collecting DNA samples from the mango trees, which can be extracted from different plant tissues, such as young leaves or buds. After the DNA has been extracted, the samples are amplified using PCR (polymerase chain reaction), during which SSR markers are applied as primers, amplifying multiple copies of the SSR region for analysis. The amplified DNA fragments are then separated by size using gel electrophoresis and analyzed. The results generated from the SSR markers are then used to identify and group mango cultivars based on the similarity in their molecular profiles. The markers can also be used to estimate the genetic variation among cultivars and to develop breeding strategies for more productive cultivars or specific traits. In conclusion, the molecular characterization of mango cultivars utilizing SSR markers is essential for identifying and breeding mango cultivars. It enables better management and conservation of mango germplasm resources and enhances the development of new and improved cultivars for commercial production. SSR markers for the molecular characterization of mango (*Mangifera indica* L.) cultivars Utilizing SSR for molecular characterization of mango (*Mangifera indica* L.) cultivars **The abstract needs to be revised and rewritten.** **They should be set according to the guidelines of journal authors.** Materials, methods and results have flaws: 1- The ladder used is not suitable for the size of the DNA fragments. Considering the lightness of the parts, it would have been better to use a 50 bp ladder. 2- The gel is not well run, and the bands are not well separated. 3- The pictures of the gels for the two mentioned primers are entirely different from Table 4 (marker 11 (A) and marker 3 (B)). 4- Appropriate primers are not selected. Their references are not mentioned. 5- The results should be carefully re-evaluated. References should be adjusted according to the authors' guide. The entire text should be revised and fundamentally rewritten in terms of the rules and grammar of the English language.	

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Minor REVISION comments **1. Is language/English quality of the article suitable for scholarly communications?**	It needs severe revision and correction.	
Optional/General comments	It needs correction and revision in terms of statistics and English grammar.	

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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