

Review Form 3

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| Journal Name:            | Biotechnology Journal International   |
| Manuscript Number:       | Ms_BJI_126218   |
| Title of the Manuscript: | Utilizing Plant Tissue Culture Protocol for Propagation of Jatropha curcas-A Semi-Arid Tree Species in Maiduguri, Nigeria |
| Type of the Article      | Research  |

PART 1: Review Comments

| Compulsory REVISION 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. Why do you like (or dislike) this manuscript? A minimum of 3-4 sentences may be required for this part.                        | This manuscript significantly contributes to the scientific community by developing an efficient micropropagation protocol for *Jatropha curcas*, a species valued for its potential in biofuel production. The study effectively demonstrates how varying concentrations of plant growth regulators impact shoot induction and multiplication, offering valuable insights for future research in plant tissue culture. While the thorough statistical analysis enhances the reliability of the findings, the absence of successful rooting poses a limitation that requires further investigation. Overall, this work underscores the importance of optimizing propagation techniques to improve the cultivation of *Jatropha curcas* and supports its sustainable agricultural applications.         |  |
| 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.   | The abstract should be made more comprehensive, informative, and engaging for readers, effectively conveying the significance and findings of the study. Additionally, it is important to correct grammatical errors such as changing “explant were cultured” to “explants were cultured,” modifying “different level” to “different levels” for accuracy, and revising “which forced for histology” to “which necessitated histological analysis” for improved clarity.   |  |
| Are subsections and structure of the manuscript appropriate?  | Yes  |  |
| Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimum of 3-4 sentences may be required for this part. | The manuscript exhibits scientific robustness through a systematic investigation of the effects of various concentrations and combinations of benzyl adenine (BA) and indole-3-butyric acid (IBA) on the growth of <i>Jatropha curcas</i> shoot tip explants in MS culture medium. The results, documented over four weeks, clearly illustrate the time-dependent effects on shoot bud differentiation and leaf protrusions. Quantitative measurements of shoots, leaves, and shoot length enable meaningful comparisons between treatments, while identifying optimal conditions for growth underscores the technical soundness of the methodology, enhancing the manuscript's scientific credibility.  |  |
| Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.<br>:  | <b>The references are sufficient.</b><br>The references provided contain a mix of formats and some grammatical inconsistencies. In the reference section, one author's name mentioned in the text (Rakshit, 2010) is not listed in the references. Additionally, “Rout et al. (2008)” is cited in the text but is missing from the reference list.<br>i) Use a consistent format for author names throughout, such as using initials for first names without spaces (e.g., Akin-Idowu, P.E., instead of Akin-Idowu, P. E.).<br>ii) Ensure consistency in the formatting of page ranges (e.g., 1-10 or 1:10). A common style is to use a dash without spaces (e.g., 1-10 instead of 1 – 10).<br>iii) Capitalize only the first word of the title, the first word after a colon, and any proper nouns in |  |

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|   | <p>the article titles. The rest should be in lowercase.</p> <p>iv) Check for consistent spacing (no extra spaces between authors, title, etc.) and correct punctuation, including the use of commas and periods.</p> <p>For an example –</p> <p>Aerts, R., &amp; Honnay, O. (2011). Forest restoration, biodiversity, and ecosystem functioning. <i>BMC Ecology</i>, 11, 29. <a href="https://doi.org/10.1186/1472-6785-11-29">https://doi.org/10.1186/1472-6785-11-29</a></p> <p>Akin-Idowu, P.E., Ibitoye, D.O., &amp; Ademoyegun, O.T. (2009). Tissue culture as a plant production technique for horticultural crops. <i>African Journal of Biotechnology</i>, 8(16), 3782-3788.</p> <p>Arnaldos, T.L., Muñoz, R., Ferrer, M.A., &amp; Calderón, A.A. (2001). Changes in phenol content during strawberry (<i>Fragaria x ananasa</i>, cv. Chandler) callus culture. <i>Physiologia Plantarum</i>, 113, 315-322.</p>   |  |
| <p>Minor REVISION comments</p> <p>Is the language/English quality of the article suitable for scholarly communications?</p> | <p>The English quality in introduction and methods sections is generally clear, but there are several areas where clarity, grammar, and style can be improved.</p>  |  |
| <p>Optional/General comments</p>  | <p>The article is well-written and highly informative, making it accessible to research scholars. However, there are a few suggestions for the author to consider:</p> <ol style="list-style-type: none"><li><b>Consistency in Terminology:</b> The term “in vitro” should be consistently written as "in vitro" throughout the article.</li><li><b>Species Description and Images:</b> The author should include a description of the species, along with relevant images and additional information about the medicinal values mentioned in the abstract.</li><li><b>Clarity in Materials and Methods:</b> The Materials and Methods section should be written with precision and clarity. For example, instead of saying, “The pH of the medium was adjusted to 5.7 with 1 mmol NaOH (Sodium hydroxide) or 1 mmol HCl (Hydrochloric acid),” the author should present this in a more precise manner.</li><li><b>Capitalization of Hormone Names:</b> The names of hormones should always start with a capital letter for visibility.</li><li><b>Statistical Data in Tables:</b> In the table, the author mentions means, but the data are presented as “2.000±0.577.” It's important to indicate the unit of measurement, such as cm or grams, and specify whether the values represent standard deviation or standard error.</li><li><b>Reference Section:</b> In the reference section, one author's name mentioned in the text (Rakshit, 2010) is not listed in the references. Additionally, “Rout et al. (2008)” is cited in the text but is missing from the reference list.</li></ol> |  |

PART 2:

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