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| Journal Name: | Advances in Research |
| Manuscript Number: | **Ms\_** AIR **\_137321** |
| Title of the Manuscript: | **Impact of Growth Media on Cucumber Growth and Cost-Benefit Analysis of Treatments in a Greenhouse Environment** |
| Type of the Article | **Original Research Article** |

**PART 1: Comments**

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|  | **Reviewer’s comment**   |  |  | | --- | --- | | **Artificial Intelligence (AI) generated or assisted review comments are strictly prohibited during peer** | | | **review.** |  | | **Author’s Feedback** (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.** | This manuscript provides valuable insights into the effects of different growth media on cucumber growth and economic returns in a greenhouse setting. It highlights the potential of sustainable substrates like biochar and cocopeat in enhancing plant performance. The inclusion of cost-benefit analysis makes the study practical for adoption in resource-limited regions. These findings are relevant for improving greenhouse cultivation practices and optimizing input use in horticulture. |  |
| **Is the title of the article suitable?**  **(If not please suggest an alternative title)** | The current title, "Impact of Growth Media on Cucumber Growth and Cost-Benefit Analysis of Treatments in a Greenhouse Environment," is informative and generally suitable. However, it could be made more concise and impactful by emphasizing key variables and outcomes.  Suggested alternative:  "Effect of Growth Media on Cucumber Performance and Economic Returns in a Greenhouse Setting" |  |
| **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 is generally comprehensive, clearly stating the objective, methodology, key findings, and conclusion. However, a few improvements could enhance clarity and impact:  Suggested Improvements:   1. Clarify statistical significance – Briefly mention that results were statistically significant where relevant (e.g., growth parameters, cost-benefit ratios). 2. Simplify technical terms – Phrases like “100% ETc” may not be immediately clear to all readers. A brief clarification (e.g., “crop evapotranspiration requirement”) could help. 3. Refine conclusion – Instead of ending with a vague suggestion, clearly state the main practical takeaway (e.g., “Soil was the most cost-effective medium, while cocopeat promoted optimal growth.”). 4. Consider shortening – The abstract is slightly long; streamlining repetitive points or moving specific numeric values to the Results section could improve readability. |  |
| **Is the manuscript scientifically, correct? Please write here.** | Yes, the manuscript is scientifically sound and methodologically correct. It follows a logical structure, employs appropriate experimental design (3×3 factorial in RCBD), and uses standard analytical methods (ANOVA, LSD) to assess treatment effects. The measurements of physical and chemical properties of the media, as well as growth and economic parameters, are well-documented and supported by relevant literature. Results are clearly presented and interpreted, with appropriate citations. However, minor improvements in clarity, grammar, and data interpretation could enhance the manuscript’s overall quality and readability. |  |
| **Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.** | Yes |  |
| **Is the language/English quality of the article suitable for scholarly communications?** | The language of the article is generally understandable and conveys the scientific content accurately. However, it would benefit from minor editing to improve clarity, grammar, and fluency for scholarly communication. Some sentences are overly long or awkwardly phrased, and there are a few grammatical inconsistencies (e.g., verb tenses, article usage, punctuation). With light professional proofreading, the manuscript can meet the standard expected in academic journals.  Eg. "The study compared the growth of cucumber grown on soil with that grown on cocopeat and soil-biochar and the cost-benefit ratio of the treatments in a greenhouse." |  |
| **Optional/General** comments | This is a relevant and well-designed study with practical implications. Minor language edits are needed for clarity. A concise summary table or figure would enhance understanding. Overall, it contributes valuably to greenhouse cultivation research. |  |

**PART 2:**

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|  | **Reviewer’s comment** | **Author’s Feedback** (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 detail)* |  |

**Reviewer details:**

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