Review Form 3

| Journal Name: | Journal of Advances in Biology & Biotechnology |
|--------------------------|---|
| Manuscript Number: | Ms_JABB_131106 |
| Title of the Manuscript: | Morphological diversity and character association studies in Snake gourd (Trichosanthes anguina L.) |
| Type of the Article | Original Research Paper |

PART 1: Comments

| | Reviewer's comment Artificial Intelligence (AI) generated or assisted review comments are strictly prohibited during peer review. | 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. | This manuscript provides a comprehensive study of the morphological diversity and character interrelations in snake gourd (<i>Trichosanthes anguina</i> L.), thus making a significant contribution to the current scientific literature. Through the analysis of 26 genotypes, this study provides valuable information on genetic diversity, trait interrelations, and path coefficient analysis, which are basic building blocks for breeding programs. The findings highlight key traits like fruit width, number of fruits per plant, and mean fruit weight, all of which have a direct relationship with yield, thus providing valuable selection criteria for plant breeders. In addition, the study highlights the importance of genetic variability in terms of crop improvement, enabling the production of high-yielding and superior snake gourd varieties. It is expected that these findings will provide a foundation for future breeding programs, ultimately enhancing productivity and sustainability in snake gourd production. | |
| Is the title of the article suitable? (If not please suggest an alternative title) | Yes, the title is concise and accurately reflects the topic. | |
| 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. | Yes, the abstract provides a clearer and more detailed summary of the study, highlighting key findings and their implications. | |
| Is the manuscript scientifically, correct? Please write here. | The manuscript appears to be scientifically accurate based on the methodologies used, statistical analyses performed, and the references cited. The study follows a randomized complete block design, employs well-established statistical methods (Mahalanobis' D², correlation coefficients, and path coefficient analysis), and compares findings with previous research. The results and conclusions are logical and consistent with the data presented. | |
| Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form. | Yes, the references included in the manuscript seem relevant to the topic and cover a range of aspects concerning morphological diversity and character association studies in snake gourd. Some references are relatively recent which is advantageous for maintaining the document's relevance. | |

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| Is the language/English quality of the article suitable for scholarly communications? | Yes, the article's English quality is functional for scholarly communication. It is clear, easy to understand, and effectively conveys the intended message. | |
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| Optional/General comments | The manuscript appears to be a well-structured scientific study focusing on morphological diversity and character association studies in snake gourd (<i>Trichosanthes anguina</i> L.). Below is a general comment on the manuscript: 1. Clear Objective 2. Comprehensive Methodology 3. Detailed Results and Discussion 4. Practical Implications | |

PART 2:

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

Reviewer Details:

| Name: | Waikhom Jupiter Singh |
|----------------------------------|---|
| Department, University & Country | South Asian Institute of Rural and Agricultural Management, India |

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