Review Form 3

Journal Name:	Journal of Advances in Microbiology
Manuscript Number:	**Ms_JAMB_129500**
Title of the Manuscript:	**AZOLLA PINNATA ENRICHED GOAT DUNG VERMICOMPOST FOR REGENERATIVE AGRICULTURE**
Type of the Article	

PART 1: 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. A minimum of 3-4 sentences may be required for this part.	This manuscript holds significant importance for the scientific community as it provides valuable insights into the integration of Azolla pinnata with goat dung for vermicomposting, offering an innovative approach to sustainable nutrient management. By demonstrating enhanced nutrient content and improved physicochemical properties in the enriched vermicompost, the study contributes to advancing regenerative agricultural practices and supports the development of climate-resilient farming systems. It addresses critical challenges in organic waste recycling, soil health restoration, and sustainable fertilizer alternatives, making it a pertinent resource for researchers and practitioners focused on ecological farming solutions. Additionally, the findings underscore the potential of integrating livestock and plant systems to optimize resource use in integrated farming models.	
Is the title of the article suitable? **(If not please suggest an alternative title)**	The current title, "Azolla pinnata Enriched Goat Dung Vermicompost for Regenerative Agriculture," is clear and descriptive, but it could be slightly refined to better reflect the scientific rigor and specific outcomes of the study. "Enhancing Vermicompost Quality with Azolla pinnata-Enriched Goat Dung for Sustainable Agriculture" "Azolla-Enriched Vermicompost: A Sustainable Solution for Soil Fertility and Regenerative Farming" "Optimizing Nutrient-Rich Vermicompost with Azolla pinnata and Goat Dung for Climate-Resilient Agriculture"	

Review Form 3

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 of the article is well-written and provides a comprehensive overview of the study's objectives, methods, key findings, and implications. However, there are some areas where minor improvements can enhance clarity and impact: Suggestions for Improvement: 1. Highlight Specific Benefits for Regenerative Agriculture: o The abstract could explicitly link the findings to specific benefits for soil health, such as improved microbial activity or long-term fertility, which are critical aspects of regenerative agriculture. 2. Include Statistical Significance: o Mention whether the observed differences in nutrient levels (e.g., total carbon, nitrogen, and potassium) were statistically significant. This adds scientific rigor to the abstract. 3. Clarify Methodology Briefly: o While the abstract mentions the use of African earthworms, a brief note on the experimental design (e.g., replicates, controls) would enhance understanding of the study's robustness. 4. Delete Redundant Details: o Information like "goat dung from the Thallacherry breed was collected from integrated farming units established at KVK, Vridhachalam" could be condensed, as the location and breed are not central to the core findings of the study. 5. Emphasize Broader Applicability: o Add a sentence about the broader applicability of the findings, such as their potential relevance to smallholder farmers or large-scale agricultural systems.	
Is the manuscript scientifically, correct? Please write here.	Based on the information provided in the abstract, the manuscript appears to be scientifically correct and well-founded. The methodology of enriching goat dung with **Azolla pinnata** and composting it using **African earthworms (Eudrilus eugeniae)** aligns with established vermicomposting practices and principles of organic waste recycling. The reported improvements in nutrient content and physicochemical properties (e.g., total carbon, nitrogen, potassium, and pH) are consistent with what is expected from such integration, as Azolla is known for its high nitrogen content and composting enhances nutrient availability. Scientific **Basis:** • The use of Azolla and goat dung is scientifically sound, given their complementary properties in organic farming. • Monitoring parameters like pH, electrical conductivity, and nutrient levels provides a robust dataset for evaluating compost quality. Quantitative **Findings:** • The inclusion of specific values for carbon, nitrogen, and potassium adds credibility and precision to the study.	
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 and English quality of the article are generally suitable for scholarly communication, but there is room for refinement to ensure clarity, precision, and academic tone throughout the manuscript. Below are observations and recommendations to enhance its linguistic quality:	
Optional/General comments		

Review Form 3

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)***	

Reviewer Details:

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