

Peer Review

Review of: "Biopesticide Market and Regulatory Landscape with Determinants of Farm-Level Use in India"

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Reviewer Comments:

I have carefully reviewed the manuscript titled **"Biopesticide Market and Regulatory Landscape with Determinants of Farm-Level Use in India"**. The paper provides an insightful summary of the global and national biopesticide markets, tracks trends in biopesticide demand and consumption in India, identifies determinants of expenditure on biopesticides, and reviews regulatory systems in selected countries. The findings suggest that biopesticide consumption for agricultural pest control in India has been slow, and promoting biopesticide formulations is critical for advancing sustainable agriculture.

After reviewing the manuscript, I find several aspects to be commendable, but there are also areas that could benefit from further improvement:

Strengths:

1. **Abstract:** The abstract is well-written and effectively summarizes the key points of the paper. It provides a clear overview of the scope, objectives, and findings.

Suggestions for Improvement:

1. **Introduction - Citations and References:** The introduction would benefit from additional citations to support the claims made in various sections. Several statements in the introduction are not backed by references, which could weaken the manuscript's academic rigor. I recommend the authors incorporate relevant references that will help substantiate the background and

provide more depth. Specifically, the following references could be valuable:
(DOI: [10.1016/j.heliyon.2023.e23406](https://doi.org/10.1016/j.heliyon.2023.e23406); <https://doi.org/10.1002/tqem.22174>;
<https://doi.org/10.1002/tqem.22227> <https://doi.org/10.1016/j.parint.2020.102099>). These references will not only support the introductory claims but also provide a broader understanding of biopesticides from a global perspective, which could strengthen the manuscript.

2. Results and Discussion – Citations: The **Results and Discussion** section could also benefit from additional citations to support the data presented. For example, when referring to studies or reports such as those from the **European Food Safety Authority (EFSA)** or other relevant institutions, it is crucial to cite these sources properly.

Additional Remarks: The manuscript addresses a significant gap in the biopesticide sector in India and presents valuable findings for both researchers and policymakers. However, enhancing the citation practices throughout the manuscript will make the paper stronger and more academically robust. The **regulatory landscape** discussion, especially in the **Results and Discussion** section, can be expanded by including a comparative analysis of different countries' regulatory frameworks and how they impact the adoption of biopesticides. Lastly, I suggest the authors conduct a brief review of the latest literature on biopesticide market trends and their integration into sustainable farming practices to ensure that the manuscript is up-to-date.

Overall, I see substantial merit in this research, and with some revisions, the manuscript can be a valuable contribution to the field of agricultural sustainability and biopesticide adoption.

Declarations

Potential competing interests: No potential competing interests to declare.