

Peer Review

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

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

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Overall manuscript approach

The manuscript aims to describe the trends in biopesticide adoption in agricultural practices for pest management in India. Manuscript findings highlight the need for promotion of this product for pest control, emphasizing the key role of government and farmer organizations in this task to increase the use of these pest control alternatives in Indian agriculture. International regulations on the use of pesticides could help to establish a regulatory framework for biopesticide use in India.

Commentaries:

In the fragment “non-target organism harm,” it could be “non-target organism harms.”

In “genetic processes for pest protection in agriculture,” genetic processes could be “genetic-based processes.”

The sentence “Despite their benefits, the adoption of biopesticides remains low in India” needs supporting information about the biopesticides' benefits.

In “pest-related yield losses in India,” complement the information with the corresponding year of the data.

At the end of the first paragraph in the introduction, why focus on the adverse effects of just insecticides? Other pesticides don't have similar drawbacks, or will the manuscript focus on biopesticides for insect control?

Choose a more adequate term for "agricultural commodities," maybe "agricultural interest plants."

In the second paragraph, information related to biopesticides needs supporting references. A more detailed description of biopesticides is needed, including key aspects such as their types, advantages, and drawbacks.

At the end of the introduction, it mentions, "This study focuses on examining the market, categories, and regulation of biopesticides, as well as their production, consumption, and usage patterns in India." Similar studies have been recently published; what is different in the present research? Complement the manuscript with a description of the differences of the current research with respect to previously published articles; two examples are listed below.

Recent similar studies:

Chakraborty, N.; Mitra, R.; Pal, S.; Ganguly, R.; Acharya, K.; Minkina, T.; Sarkar, A.; Keswani, C. Biopesticide Consumption in India: Insights into the Current Trends. *Agriculture* **2023**, *13*, 557. <https://doi.org/10.3390/agriculture13030557>

Tripathi, Y.N. *et al.* (2020). Biopesticides: Current Status and Future Prospects in India. In: Keswani, C. (eds) *Bioeconomy for Sustainable Development*. Springer, Singapore. https://doi.org/10.1007/978-981-13-9431-7_6

The period of data search "2018-19 to 2022-23" could be "2018-2023."

Eliminate "and" between Latin America and the Middle East

Could use "microorganisms" instead of "microbials."

Complement "numerous opportunities," for example, "to increase their use in India."

Complement the section "Consumption of Biopesticides in India - National Level" with the increase percentages.

Figure 2 needs improvement; legends are overlapped.

Describe in the manuscript what "Unit Area" means.

What does "PPQS" mean?

What does “NPV” mean? Describe it the first time mentioned; subsequently, “NPV-H” is used. Which is the correct?

Use the full scientific name *Helicoverpa armigera* the first time mentioned; subsequently, just *H. armigera*.

In “11.39 percent,” it could be “11.4%.”

The references included in the manuscript could be limited; include relevant and recent references, mainly in the biopesticide description.

Declarations

Potential competing interests: No potential competing interests to declare.