

REVIEWER'S REPORT

Manuscript No.: JNAVS -032

Title: INTEGRATED PEST MANAGEMENT IN MODERN AGRICULTURE: APPROACHES, BENEFITS, AND FUTURE PERSPECTIVES.

Recommendation:

Accept as it is

Accept after minor revision.....

Accept after major revision

Do not accept (*Reasons below*)

Rating	Excel.	Good	Fair	Poor
Originality		✓		
Techn. Quality		✓		
Clarity	✓			
Significance	✓			

Reviewer Id: JPR-189

Reviewer's Comment for Publication.

The manuscript presents a concise review of Integrated Pest Management (IPM) and its role in sustainable agriculture. The topic is highly relevant given the increasing concerns regarding pesticide resistance, environmental degradation, and the need for sustainable crop protection strategies. The paper provides a clear overview of the major components of IPM, including cultural, biological, mechanical, and chemical control methods, along with recent technological developments such as artificial intelligence, remote sensing, and precision agriculture.

Strengths:

1. The manuscript addresses an important subject with global significance for sustainable agricultural production.
2. The article is well structured and written in a clear and understandable manner.
3. Major principles and components of IPM are adequately described.
4. The discussion on technological innovations and future perspectives enhances the practical relevance of the review.
5. The manuscript effectively highlights the environmental and human health benefits associated with IPM adoption.

Minor Revisions Suggested:

1. Include more recent literature (2020–2025) to strengthen the scientific foundation and reflect current developments in IPM research.
2. Add quantitative examples or case studies demonstrating reductions in pesticide use, economic benefits, or yield improvements achieved through IPM implementation.
3. Expand the discussion on pest resistance management and the role of IPM in mitigating resistance development.
4. Include a comparative table summarizing various IPM components, their advantages, limitations, and field applications.

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5. Provide additional discussion on challenges faced by smallholder farmers in adopting IPM practices, particularly in developing countries.
6. Improve the Future Perspectives section by incorporating emerging technologies such as machine learning-based pest forecasting, digital decision-support systems, and advanced biological control innovations.
7. Ensure uniform formatting of headings, numbering, and references throughout the manuscript.

Overall Assessment:

The manuscript provides a useful overview of Integrated Pest Management and its contribution to sustainable agriculture. The content is relevant, well organized, and suitable for publication after minor revisions. Addressing the suggested points will enhance the manuscript's scientific depth, practical applicability, and overall impact.

Recommendation: Accept after Minor Revision.