

Review Form 1.7

Journal Name:	Journal of Experimental Agriculture International
Manuscript Number:	Ms_JEAI_114638
Title of the Manuscript:	Integrated Weed Management in Mustard (<i>Brassica juncea</i> L.) – A Review
Type of the Article	

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PART 1: Review Comments

	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)
<p>Compulsory REVISION comments</p> <ol style="list-style-type: none"> 1. Is the manuscript important for scientific community? (Please write few sentences on this manuscript) 2. Is the title of the article suitable? (If not please suggest an alternative title) 3. Is the abstract of the article comprehensive? 4. Are subsections and structure of the manuscript appropriate? 5. Do you think the manuscript is scientifically correct? 6. Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form. <p><u>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</u></p>	<ol style="list-style-type: none"> 1. Yes, the provided information suggests it holds potential significance due to the following reasons: <ol style="list-style-type: none"> a. Addresses a crucial aspect of agriculture: Effective weed management is critical for maximizing crop yield and minimizing resource wastage in mustard cultivation. effective weed management in mustard cultivation is essential for ensuring high crop yield, quality produce, efficient use of resources, reduced cultivation costs, and environmental sustainability. b. Considers various IWM strategies: The manuscript explores a combination of methods like herbicide use, manual weeding, cultural practices, and nutrient management, reflecting a comprehensive approach to weed control. c. Evaluates the impact on multiple parameters: The references suggest the manuscript assesses the effects of IWM on factors like yield, growth parameters, economic returns, and potentially even environmental implications. 2. The title "Integrated Weed Management in Mustard (<i>Brassica juncea</i> L.) – A Review" is mostly suitable, but it could be improved for better clarity and conciseness: <ol style="list-style-type: none"> a. Strengths: <ul style="list-style-type: none"> ▪ Clearly mentions the subject: "Integrated Weed Management" and "Mustard" accurately convey the focus of the article. ▪ Scientifically accurate: Including "<i>Brassica juncea</i> L." demonstrates the scientific rigor of the article. b. Areas for Improvement: <ul style="list-style-type: none"> ▪ Redundancy: "A Review" is implied in the context of scientific publications and can be omitted. c. Additional Considerations: <ul style="list-style-type: none"> ▪ Focus: If the review emphasizes a particular aspect of IWM (e.g., economic analysis, novel techniques), it can be briefly mentioned in the title for enhanced clarity. ▪ Target Audience: Depending on the intended readership (researchers, practitioners), the title could be tailored accordingly. <p>Here are some alternative title options that incorporate these suggestions:</p> <ul style="list-style-type: none"> ▪ Optimizing Weed Control: A Review of Integrated Weed Management in Mustard (<i>Brassica juncea</i> L.) (Highlights the focus on optimization) ▪ Economic Implications of Integrated Weed Management in Mustard Production (Targets a specific audience) 3. Yes, based on the provided abstract, but the comprehensiveness can be improved: <ol style="list-style-type: none"> a. Strengths: <ul style="list-style-type: none"> ▪ Highlights the importance of weed management: The abstract clearly emphasizes the detrimental impact of weeds on mustard yield. ▪ Mentions limitations of traditional methods: The abstract acknowledges the shortcomings of solely relying on hand weeding. ▪ Introduces the concept of integrated methods: Briefly mentions the potential benefits of IWM approaches. b. Areas for Improvement: <ul style="list-style-type: none"> ▪ Lacks specific details on IWM strategies: While the abstract mentions IWM, it doesn't delve into the different strategies or their potential benefits. ▪ Limited mention of the review's scope: The abstract doesn't explicitly state the purpose of the review or the specific aspects of IWM it explores. c. Here's how the abstract can be improved: <ul style="list-style-type: none"> ▪ Mustard (<i>Brassica juncea</i> L.) is a vital oilseed crop facing significant yield decline due 	

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	<p>to weed competition. This review explores Integrated Weed Management (IWM) strategies as a sustainable approach to address this challenge. The abstract discusses the limitations of traditional practices like hand weeding and emphasizes the need for comprehensive IWM methods. This review analyzes various IWM components, including herbicide use, mechanical methods, and cultural practices, along with their potential impact on weed control, crop yield, and environmental considerations.</p> <p>d. Additional elements for a stronger abstract:</p> <ul style="list-style-type: none">▪ Mention the target audience: Briefly indicate if the review is aimed at researchers, farmers, or a broader audience.▪ Highlight key findings: Briefly summarize the main conclusions drawn from the review regarding the effectiveness of IWM in mustard cultivation. <p>4. The manuscript on Integrated Weed Management in Mustard (<i>Brassica juncea</i> L.) is well-structured and covers comprehensive aspects of the topic. The sections are logically ordered, beginning with an abstract that provides an overview, followed by an introduction that sets the stage for the discussion. The subsequent sections delve into specific areas of weed management in mustard, addressing yield losses caused by weeds, the effects of various weed management practices, and the impacts of these practices on crop growth parameters, yield attributes, and soil enzyme activity. The conclusion effectively summarizes the findings and recommendations.</p> <p>Here are a few suggestions to further refine the structure and content:</p> <p>a. Abstract: The abstract gives a concise overview but could benefit from a brief mention of the key findings and recommendations for weed management in mustard.</p> <p>b. Introduction: This section sets the scene well. It might be improved by briefly mentioning the scope of the review in terms of the geographic focus (if any) and the range of weed management practices reviewed.</p> <p>c. Review Sections:</p> <ul style="list-style-type: none">▪ The detailed review of yield losses, weed management practices, effects on crop growth, and yield attributes are thorough. Each section is appropriately titled and focuses on a specific aspect of weed management. However, for enhanced clarity, consider adding subheadings within long sections to guide the reader through different concepts or study findings.▪ Including a section on the methodology of the review (e.g., databases searched, keywords used, criteria for selecting studies) could enhance the manuscript by providing context on how the literature was reviewed and the basis for inclusion of studies. <p>d. Conclusion: The conclusion is appropriate and ties the review together well. It could be enhanced by explicitly stating practical recommendations for farmers or agronomists based on the reviewed literature.</p> <p>e. References: Ensure that all references are up-to-date and relevant. It might be useful to include a statement on the temporal scope of the literature search to inform the reader of the currency of the review.</p> <p>f. Figures and Tables: consider adding tables or figures that summarize key findings or compare the efficacy of different weed management practices. Visual aids can greatly enhance the accessibility of the information presented.</p> <p>g. Future Directions: A short section on future research needs or emerging technologies in weed management could provide valuable insights and highlight areas where further investigation is warranted.</p> <p>Overall, the manuscript appears to be a comprehensive review of integrated weed management in mustard, and with minor adjustments, it could provide a valuable resource for researchers, agronomists, and farmers interested in optimizing weed control in mustard cultivation.</p> <p>5. The manuscript you provided is a comprehensive review on Integrated Weed Management (IWM) in mustard (<i>Brassica juncea</i> L.) that covers various aspects including yield losses due to</p>	
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	<p>weeds, effects of different weed management practices, impact on crop growth and yield attributes, and effects on soil enzyme activity. It also touches on economic considerations and the impact of weed management practices on the energetics of mustard production.</p> <p>From a scientific standpoint, the manuscript appears to be well-researched and discusses a wide range of studies related to weed management in mustard. It correctly emphasizes the importance of IWM in increasing the efficiency of weed control, reducing yield losses, and potentially improving economic returns. The manuscript also acknowledges the environmental implications of herbicide use and the importance of integrating cultural, mechanical, and chemical methods for effective weed management.</p> <p>6. This list focuses on recent and relevant references on integrated weed management (IWM) in mustard, incorporating various aspects like herbicides, cultural practices, and their impact.</p> <p>The distribution of the references according to the requested time frames is as follows:</p> <ul style="list-style-type: none">▪ For the period 2020 - 2024, approximately 28.57% of the references fall into this category.▪ For the period 2015 - 2019, about 30.61% of the references are within this range.▪ For the period before and including 2014, approximately 40.82% of the references belong to this category. <p>The distribution of references from the review paper on Integrated Weed Management in Mustard (<i>Brassica juncea</i> L.) shows that research on this topic has been steadily receiving attention over time, with an even spread of attention throughout the years. With approximately 40.82% of references before 2015, it indicates that the foundation for research and methodology in weed management in mustard has been well established and extensively discussed in that period. The 30.61% of references from the period of 2015-2019 suggest that there was an increase in research related to innovations and new techniques in weed management. Meanwhile, references from 2020 to 2024, accounting for 28.57%, indicate that this topic remains relevant and continues to evolve with the latest research, potentially including new technologies, climate change, and sustainable farming practices.</p> <p>Suggestions:</p> <ol style="list-style-type: none">a. Update with Latest Data and Literature: To maintain relevance and accuracy, researchers should continually update their data and literature with the most recent studies and findings, especially from 2020 to 2024. This will ensure the review reflects current practices and innovations in weed management in mustard.b. Focus on New Innovations and Technologies: Given the rapid changes in technology and methodology, research should focus more on new innovations and technologies in weed management. This could include the use of Information and Communication Technology (ICT), robotics, and biotechnological approaches.c. Emphasis on Stability and Sustainability: With increasing concerns about climate change and environmental sustainability, research should also explore weed management strategies that are environmentally friendly and sustainable. This includes the use of biological agents, conservation farming practices, and ecosystem-based weed management approaches.d. Interdisciplinary and Collaboration: Encourage interdisciplinary research and collaboration between agronomists, ecologists, biotechnologists, and IT professionals to develop innovative and integrated solutions in weed management for mustard.e. Case Studies and Field Trials: Increase the number of case studies and field trials to evaluate the effectiveness of the latest weed management techniques under real conditions. This will provide strong empirical evidence about the success or shortcomings of specific methods, aiding in practical agricultural decision-making.	
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<p>Minor REVISION comments</p> <p>1. Is language/English quality of the article suitable for scholarly communications?</p>	<p>The language and overall quality of English in the article are relatively good and adhere to the standard expected in scholarly communications. However, there are several areas where improvements could enhance clarity, coherence, and the professional tone of the document. Here are some specific suggestions for improvement:</p> <ol style="list-style-type: none"> a. Consistency in Terminology: Ensure consistency in the use of specific terms and names throughout the article. For example, "Indian mustard" and "mustard" are used interchangeably; it might be clearer to consistently use one term or clearly define the scope at the beginning. b. Formatting and Structure: The article could benefit from a more structured format, including clearly defined sections with headings such as Introduction, Literature Review, Methods, Results, Discussion, Conclusion, and References. This structure enhances readability and helps readers navigate the content more efficiently. c. Citations and References: While the article includes an extensive list of references, ensuring that in-text citations are correctly formatted according to a specific citation style (e.g., APA, MLA, or Chicago) would improve its scholarly quality. Additionally, making sure all references are complete and consistently formatted is crucial. d. Clarity and Precision: Some sentences are overly long or complex, which could potentially confuse readers. Simplifying sentences, using active voice where possible, and ensuring that each sentence conveys a clear and specific idea would improve clarity. e. Technical Details: Providing more detailed explanations or definitions of technical terms and concepts not widely known outside the field could make the article more accessible to a broader audience, including researchers from related disciplines. f. Proofreading: A thorough proofreading session would help catch and correct typographical errors, grammatical mistakes, and awkward phrasing. Even small errors can detract from the credibility of a scholarly article. g. Use of Visuals: Including tables, figures, or charts to summarize data, show trends, or illustrate key points could enhance the article's effectiveness. Visual aids are particularly useful in research articles to break up text and convey complex information in an accessible format. <p>Implementing these improvements would enhance the article's suitability for scholarly communication, making it more valuable as a contribution to the academic community.</p>	
<p>Optional/General comments</p>		

PART 2:

	<p>Reviewer's comment</p>	<p>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)</p>
<p>Are there ethical issues in this manuscript?</p>	<p><i>(If yes, Kindly please write down the ethical issues here in details)</i></p>	

Reviewer Details:

<p>Name:</p>	<p>Sukarman</p>
<p>Department, University & Country</p>	<p>Darwan Ali University, Indonesia</p>