

### Review Form 3

Journal Name:	<a href="#">South Asian Research Journal of Natural Products</a>
Manuscript Number:	Ms_SARJNP_129565
Title of the Manuscript:	PHYTOCHEMICAL EVALUATION AND IN-VITRO ANTIOXIDANT, ANTI-INFLAMMATORY, AND ANTI-DIABETIC ACTIVITY ASSESSMENT OF LINUM USITATISSIMUM L. SEED EXTRACT
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)
<b>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.</b>	The topic of this research is indeed important and interesting. However, after reviewing the manuscript, it appears that some of the work presented has already been addressed in previous studies. While the methodology and experimental design are well-executed, it may be valuable for the authors to clarify how this study differs from prior work or explain any novel contributions. One suggestion for adding novelty and making the study more impactful would be to explore a different plant variety or one that is cultivated under specific environmental or agricultural conditions. By selecting a different variety or a locally relevant cultivar, the study could potentially provide new insights into how genetic, environmental, or agronomic factors influence [mention the key focus of the paper, e.g., yield, resistance, growth, etc.]. This would not only strengthen the originality of the work but also increase its practical relevance to agricultural practices.	
<b>Is the title of the article suitable? (If not please suggest an alternative title)</b>	The title "PHYTOCHEMICAL EVALUATION AND IN-VITRO ANTIOXIDANT, ANTI-INFLAMMATORY, AND ANTI-DIABETIC ACTIVITY ASSESSMENT OF LINUM USITATISSIMUM L. SEED EXTRACT" is generally suitable, but there are a few considerations for clarity and conciseness. Here's an example: "Phytochemical Evaluation and In Vitro Assessment of Antioxidant, Anti-inflammatory, and Anti-diabetic Activities of <i>Linum usitatissimum</i> L. Seed Extract"	

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<p>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.</p>	<p><b>1. Introduction and Context:</b></p> <ul style="list-style-type: none"><li>• <b>Current State:</b> The introduction sentence ("Linum usitatissimum (L.) is a rich source of different types of phytochemicals and possesses nutritive and therapeutic value.") is clear but could be slightly more specific. It might benefit from a brief mention of the broader context or significance of flaxseed in therapeutic research.</li><li>• <b>Suggestion:</b> "Linum usitatissimum (flaxseed) is known for its rich phytochemical profile and its potential nutritive and therapeutic value, including antioxidant, anti-inflammatory, and anti-diabetic properties."</li></ul> <p><b>2. Objective Statement:</b></p> <ul style="list-style-type: none"><li>• <b>Current State:</b> The objectives are clear, but the sentence structure can be improved for better flow.</li><li>• <b>Suggestion:</b> "This study aimed to evaluate the phytochemical composition and assess the antioxidant, anti-inflammatory, and anti-diabetic activities of flaxseed extract."</li></ul> <p><b>3. Methods:</b></p> <ul style="list-style-type: none"><li>• <b>Current State:</b> The methods section is informative but can be tightened for clarity and readability.</li><li>• <b>Suggestion:</b><ul style="list-style-type: none"><li>○ "The seed was defatted using hexane, and the defatted powder was subsequently extracted using 80% ethanol."</li><li>○ The mention of the specific assays is good but could be more concise and easier to follow by grouping similar methods together (e.g., antioxidant and anti-inflammatory in one sentence).</li></ul></li></ul> <p><b>4. Results:</b></p> <ul style="list-style-type: none"><li>• <b>Current State:</b> The results are well detailed but could be presented more clearly and with fewer numbers in a single sentence. A clearer mention of specific findings would make it easier to read.</li><li>• <b>Suggestion:</b><ul style="list-style-type: none"><li>○ For example, the FTIR and phytochemical results can be combined more succinctly. Also, mention the results of the IC50 values without repeating similar phrasing multiple times.</li><li>○ Use clearer and more concise phrasing to describe the results.</li></ul></li></ul> <p><b>5. Conclusion:</b></p> <ul style="list-style-type: none"><li>• <b>Current State:</b> The conclusion is appropriate but could be strengthened by adding a mention of the potential practical applications or future directions for research.</li><li>• <b>Suggestion:</b> "These findings suggest that flaxseed extract possesses promising antioxidant, anti-inflammatory, and anti-diabetic properties, highlighting its potential for therapeutic use. Further research is recommended to explore its clinical applications and underlying mechanisms."</li></ul>	
<p>Is the manuscript scientifically, correct? Please write here.</p>	<p>Overall, the manuscript is scientifically sound, but there are opportunities to enhance clarity, specificity, and reference support. By incorporating the above suggestions, the manuscript will be more robust and comprehensive. The key message about flaxseed's potential as a therapeutic agent for chronic diseases like diabetes and its anti-inflammatory properties is well-founded.</p>	

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<p><b>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</b></p>	<p>The references in the manuscript are generally sufficient, but the manuscript would benefit from incorporating more recent studies (from 2023 and 2024), particularly those focusing on flaxseed's bioactive compounds, health benefits, and regional variations (e.g., in Nepal). The references are broad in scope but could be more specific to the therapeutic applications of flaxseed and its phytochemical profile. Expanding the range of recent, geographically relevant, and focused studies would help to strengthen the manuscript's scientific foundation.</p>	
<p><b>Is the language/English quality of the article suitable for scholarly communications?</b></p>	<p><b>Strengths:</b></p> <ol style="list-style-type: none"> <li>1. <b>Scientific Terminology:</b> <ul style="list-style-type: none"> <li>○ The use of scientific terms, such as “phytochemicals,” “α-amylase,” “α-glucosidase,” and “FTIR analysis,” is appropriate and aligns well with the scientific audience of a research article.</li> </ul> </li> <li>2. <b>Logical Flow:</b> <ul style="list-style-type: none"> <li>○ The article is well-structured in terms of its content, with a clear introduction, objectives, methods, results, and conclusion. The logical progression from one section to another is maintained.</li> </ul> </li> <li>3. <b>Clarity in Descriptions:</b> <ul style="list-style-type: none"> <li>○ Complex processes, such as the extraction and analysis of the flaxseed, are described in a clear manner, which helps readers understand the methods and rationale behind them.</li> </ul> </li> </ol> <p><b>Areas for Improvement:</b></p> <ol style="list-style-type: none"> <li>1. <b>Sentence Structure and Clarity:</b> <ul style="list-style-type: none"> <li>○ Some sentences could be restructured for better readability. Certain sentences are long and may benefit from being broken into smaller, more digestible parts.</li> <li>○ <b>Example:</b> <ul style="list-style-type: none"> <li>▪ <i>"Despite the widespread recognition of flaxseed's nutritional and medicinal properties, there are few in-depth studies on their phytochemical, antidiabetic and anti-inflammatory potential."</i></li> <li>▪ <b>Improved:</b> <i>"Although flaxseed's nutritional and medicinal properties are widely recognized, there are relatively few in-depth studies focusing on its phytochemical, anti-diabetic, and anti-inflammatory potential."</i></li> </ul> </li> </ul> </li> </ol> <p>The overall language quality is adequate for scholarly communication but could benefit from some refinements. Improvements in sentence structure, verb tense consistency, conciseness, punctuation, and word choice would enhance the clarity and readability of the manuscript. These adjustments will make the article more accessible to an academic audience, ensuring that the research is presented in a clear and professional manner.</p>	
<p><b><u>Optional/General</u> comments</b></p>	<p>Please mention accession number in case plant sample is submitted in Herbarium. If possible mention the reference for methodology of extraction and physicochemical parameters. In References section journal names are not Italic and also reference number 08 and 20 are incomplete.</p>	

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#### **PART 2:**

	<b>Reviewer's comment</b>	<b>Author's comment</b> <i>(if agreed with the reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
<b>Are there ethical issues in this manuscript?</b>	Based on the information provided in the manuscript, there do not appear to be any explicit ethical concerns.	

#### Reviewer Details:

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