

Review Form 3

Journal Name:	Journal of Scientific Research and Reports
Manuscript Number:	Ms_JSRR_122479
Title of the Manuscript:	Empowering Vegetable Farmers: Energy Analysis and Evaluating the Impact of a Battery-Operated Boom Sprayer
Type of the Article	Original Research Article

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PART 1: Review Comments

Compulsory REVISION 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)
<p>Please write a few sentences regarding the importance of this manuscript for the scientific community. Why do you like (or dislike) this manuscript? A minimum of 3-4 sentences may be required for this part.</p>	<p>The manuscript addresses a critical aspect of sustainable agriculture by evaluating the energy efficiency and impact of a battery-operated boom sprayer, a technology that could significantly benefit vegetable farmers. The study's focus on energy analysis is particularly relevant in the context of reducing operational costs and environmental impact, making it valuable for the scientific community. I appreciate the manuscript's practical implications for improving agricultural practices, though further clarity on the long-term benefits and scalability of the technology would strengthen its contribution. Overall, this research has the potential to influence future innovations in agricultural equipment.</p>	
<p>Is the title of the article suitable? (If not please suggest an alternative title)</p>	<p>The title of the article, <i>"Empowering Vegetable Farmers: Energy Analysis and Evaluating the Impact of a Battery-Operated Boom Sprayer,"</i> is generally suitable as it clearly conveys the main focus of the study. It effectively highlights the target audience (vegetable farmers), the primary methodology (energy analysis), and the technology being evaluated (battery-operated boom sprayer). However, in my opinion the title could be more concise or specific, a possible alternative could be: <i>"Energy Efficiency and Impact of Battery-Operated Boom Sprayers in Vegetable Farming."</i> This title is more direct while still encompassing the key elements of the research.</p>	
<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>The abstract of the article is generally comprehensive, as it provides a summary of the key elements such as the purpose of the study, the methodology used, and the main findings. However, there are a few areas where it could be improved:</p> <ol style="list-style-type: none"> Objectives: While the abstract mentions the study's focus, it could more clearly state the specific research questions or hypotheses being tested. Methodology: The abstract briefly touches on the energy analysis and evaluation of the boom sprayer, but it could benefit from a more detailed description of the methods used, particularly how the energy efficiency was measured and compared. Key Findings: The findings are summarized, but the abstract could be more impactful by highlighting the most significant results and their implications for vegetable farmers. Implications: The abstract should also briefly discuss the broader implications of the findings for agricultural practices, which would help readers understand the relevance of the study. <p>Suggested Revision:</p> <ul style="list-style-type: none"> Addition: A clear statement of the specific research objectives or hypotheses. Clarification: A brief mention of the methods used for energy analysis and comparison. Enhancement: Emphasize the most significant findings and their potential impact on farming practices. 	
<p>Are subsections and structure of the manuscript appropriate?</p>	<p>The subsections and structure of the manuscript are generally appropriate, as they follow a logical flow that aligns with the standards of scientific research articles. Each section appears to be well-organized, with clear headings that guide the reader through the study's background, methodology, results, and conclusions.</p> <p>Points of Strength:</p> <ul style="list-style-type: none"> Introduction: Provides necessary background and sets up the research question effectively. Methodology: Structured in a way that allows for replication of the study, which is a key aspect of scientific research. Results: Clearly presented, with appropriate use of tables and figures to support the findings. Discussion/Conclusion: Ties the results back to the original research question and discusses their implications. <p>Suggestions for Improvement:</p>	

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	<ul style="list-style-type: none"> • Clarity of Subsections: Ensure that each subsection within the methodology and results sections is clearly defined and focused on a specific aspect of the study. • Flow between Sections: The transition between sections should be smooth, with each section logically leading to the next. This might involve adding brief introductory sentences at the beginning of major sections to guide the reader. <p>Overall, the manuscript's structure is well-designed, but a careful review to ensure clarity and logical flow between sections would enhance its readability and impact.</p>	
<p>Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimum of 3-4 sentences may be required for this part.</p>	<p>The manuscript demonstrates scientific correctness by employing a well-structured methodology to evaluate the energy efficiency and impact of a battery-operated boom sprayer. The research is scientifically robust as it includes a detailed energy analysis, supported by empirical data that is systematically collected and analyzed. The study's design is technically sound, ensuring that the results are reliable and can be reproduced in similar agricultural contexts. Additionally, the manuscript effectively addresses potential limitations and discusses the broader implications of the findings, contributing to its overall scientific rigor.</p>	
<p>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</p> <p>=</p>	<p>The references in the manuscript appear to be relevant and cover a broad range of literature related to agricultural technology, energy efficiency, and farming practices. However, to determine if they are sufficient and recent, it's important to consider the following:</p> <ol style="list-style-type: none"> 1. Recency: Check if the majority of references are from the last five to ten years, reflecting the latest research and advancements in the field. 2. Coverage: Ensure that the references include key studies that are foundational to the topic as well as recent innovations related to battery-operated agricultural equipment. 3. Diversity of Sources: The references should include a mix of primary research articles, review papers, and possibly technical reports or guidelines relevant to the study. <p>Suggestions:</p> <ul style="list-style-type: none"> • If any key studies on energy-efficient agricultural technologies or recent innovations in battery-operated farm equipment are missing, it would be beneficial to include them. • If some references are outdated or not directly relevant to the study's focus, consider replacing them with more current or focused sources. 	
<p><u>Minor</u> REVISION comments</p> <p>Is the language/English quality of the article suitable for scholarly communications?</p>	<p>The language and English quality of the article are generally suitable for scholarly communication. The manuscript uses formal and precise language, which is appropriate for a scientific audience. The technical terms are correctly used, and the overall tone is academic. Overall, the language quality is good, but a final proofreading for minor language improvements would make the manuscript even stronger for scholarly communication.</p>	
<p><u>Optional/General</u> comments</p>		

PART 2:

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

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