

Review Form 1.7

Journal Name:	Current Journal of Applied Science and Technology
Manuscript Number:	Ms_CJAST_105082
Title of the Manuscript:	ENHANCEMENT OF PRODUCTION AND PROFITABILITY OF FLAX BY FOLIAR APPLICATION OF PLANT GROWTH REGULATING HORMONES
Type of the Article	Original Research Article

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<https://www.journalcjast.com/index.php/CJAST/editorial-policy>)

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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. Is the manuscript important for scientific community? The manuscript seems to address an important topic that could be of significance to the scientific community, particularly for researchers and practitioners involved in agriculture and crop production. The study explores the effects of growth regulating hormones on the growth, yield attributes, and profitability of linseed, an economically valuable oilseed crop. 2. Is the title of the article suitable? The title effectively conveys the main focus of the study and its objectives. It clearly states that the study aims to enhance both the production and profitability of flax through the use of foliar application of plant growth regulating hormones. Here's a revised suggestion for the title: "Enhancing Flax Production and Profitability through Foliar Application of Plant Growth Hormones at Flower Initiation" 3. Is the abstract of the article comprehensive? The abstract provides a general overview of the research conducted, but it could benefit from some improvements to make it more comprehensive and clearer. <ul style="list-style-type: none"> - The introduction could be more succinct and focused on the importance of studying growth hormones in the context of flax production. The aims are mentioned, but they could be stated more explicitly and with a clear focus on what the study aimed to achieve. - The location and duration of the study are provided, which is important for context. However, you could also briefly mention why this particular location and time frame were selected. - The methodology is mentioned, but it could be more detailed. Specifically, provide a concise description of the application methods for each of the growth hormones and the control group. Mentioning the concentrations used for each hormone would also be helpful. - The conclusion is missing from the abstract. It's important to highlight the key finding, such as the most effective treatment, and briefly mention how it aligns with the original aims of the study. 4. Are subsections and structure of the manuscript appropriate? The introduction provides a good amount of information about linseed, its nutritional value, industrial uses, and its significance in India. However, it can be refined to improve clarity, focus, and flow. Here are some suggestions for improvement: <ul style="list-style-type: none"> - Clarity and Focus: Begin by briefly introducing linseed as an important rabi oilseed crop in India and its relevance in terms of nutrition, industrial uses, and economic importance. - Cohesion: Instead of listing all the nutritional components and properties in one sentence, consider breaking it down into separate points for better readability. - Citations: For the claims about linseed's properties, nutritional value, and industrial uses, it's a good practice to provide specific sources or citations to support these statements. - Global Demand and Productivity: Clarify how the increase in global demand for flaxseed and its by-products has led to an emphasis on increasing productivity. - Focus on Challenges: While discussing the reason for low yield, emphasize factors such as non-availability of high-yielding varieties and challenges in meeting global 	

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	<p>demand, in addition to other factors.</p> <ul style="list-style-type: none">- Importance of Plant Growth Regulators (PGRs): When introducing PGRs, elaborate more on how they are connected to addressing yield challenges and the role they play in plant growth and development.- Research Gap and Objective: Clearly state that the study aims to explore the potential of plant growth hormones in increasing linseed productivity, bridging the gap between current yield and rising demand. <p>The Materials and Methods section provides a clear overview of the experimental setup and procedures. However, there are a few points that could be clarified and expanded upon for better understanding:</p> <ul style="list-style-type: none">- Variety Selection: It would be helpful to include a brief rationale for selecting the 'Shekhar' variety for the experiment. Was it chosen for its high yield, suitability to the region, or other factors?- Cultivation and Data Collection: Specify the interval or stages at which hormonal treatments were applied during the vegetative and reproductive phases. For data collection, mention any specific tools or equipment used for measurements- Statistical Analysis: Provide a brief explanation of what OPSTAT is and why it was chosen for statistical analysis. You could also consider mentioning any specific statistical tests that were used to analyze the data.- Comparative Analysis: While you've mentioned that a two-way ANOVA was conducted to compare treatment means, consider explaining why this specific statistical test was chosen and how it helped analyze the data.- Overall, please use subheadings to organize and explain the various components of the "Materials and Methods" section which can greatly enhance the readability and clarity of the content. <p>The "Results" section appears to present the key findings of the study, particularly focusing on growth attributes, yield attributes, and the economic aspects. Overall, it provides a concise summary of the results. However, there are a few points that can be improved for clarity and coherence:</p> <ul style="list-style-type: none">- Clarity in Reporting: While presenting the results, ensure that you explicitly state the values and units of measurement. For instance, in "maximum plant height (68.2 cm)", it would be clearer to write "maximum plant height of 68.2 cm".- Discussion of Results: It's a good practice to provide a brief interpretation or discussion of the results after presenting them. For instance, explain why the integrated use of auxin and gibberellic acid led to better yield attributes and how it aligns with previous research.- Connecting Findings: You can improve the flow by smoothly connecting your findings with those from previous studies. For example, explain how your results align or differ from Harshit et al.'s (2021) findings.- Citing Sources: For clarity and to give proper credit, consider citing sources for the statements made about previous research. Mention specific research papers or studies that support your claims.- The conclusion you've provided is concise and effectively summarizes the key findings of your research. <p>The conclusion is concise and effectively summarizes the key findings of research. - However, here are a few suggestions to enhance the conclusion part:</p> <ul style="list-style-type: none">- Summarize Key Findings: Briefly recap the most significant findings of your study, such as the improvements in growth attributes, yield attributes, and economic aspects achieved through growth regulating hormone application.- Connect with Research Problem: Remind the reader of the initial research problem or objective. How did your findings directly address or contribute to solving this problem? This will reinforce the relevance and significance of your study.- Highlight Practical Implications: Besides mentioning the increase in productivity and profitability, briefly touch on the potential broader implications of your findings. For instance, could your results have an impact beyond Assam? How might farmers or	
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	<p>policy makers benefit from this recommendation?</p> <ul style="list-style-type: none">- Acknowledge Limitations: If there were limitations or areas where the study could be further improved, consider briefly acknowledging them. This adds transparency to your work and helps guide future research directions.- Cite Supporting Evidence: If possible, reference specific data or results from your study to support the conclusion. For example, you could mention the specific percentage increase in yield attributed to the recommended treatment.- Future Research: If applicable, suggest avenues for future research based on the insights gained from your study. This shows that your work contributes to an ongoing scientific inquiry. <p>5. Do you think the manuscript is scientifically correct?</p> <p>The manuscript appears to be scientifically correct in its approach and presentation of the research study. The study was designed with a clear objective, methodology, and data analysis. The results and discussion sections show an understanding of the findings and a comparison with existing literature. The manuscript follows a logical structure and covers key components such as growth attributes, yield attributes, and economic implications.</p> <p>However, the author needs to address the given points to make it more structured, informative, and insightful, providing readers with a comprehensive understanding of the study's outcomes and their significance.</p> <p>6. Are the references sufficient and recent?</p> <p>Need more references to support the claims in the results and discussion part.</p> <p>It would be beneficial to include more references in the discussion section. Referencing other studies provides a foundation for your interpretations and strengthens the validity of your conclusions.</p>	
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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 English quality of the article appear suitable for scholarly communication.</p> <p>However, I've identified a few areas where minor improvements can enhance clarity and readability:</p> <p>Section 1 (Introduction): Change "due the seed yield" to "due to the maximum seed yield."</p> <p>Section 2 (Materials and Methods): "Assam Agricultural University, Jorhat, Assam" could be clarified by mentioning its affiliation (e.g., "Assam Agricultural University, located in Jorhat, Assam"). Consider breaking the sentence about seed spacing into two sentences for improved readability: "The seeds were sown in three replications with a randomized block design. The seed rate was 20 kg/ha, and the spacing was 25 cm between rows and 10 cm between plants." "The experiment consisted of eight treatments" instead of "The experiment was consisted of eight treatments."</p> <p>Section 3 (Results and Discussion):</p> <p>"highest number (4.1 no./plant)" could be rephrased as "the highest number (4.1 branches per plant)."</p> <p>Consider revising "Plant growth regulators, foliar application" for clarity, such as "Regarding plant growth regulators, the foliar application of auxin at 1 ppm and gibberellic acid at 200 ppm during the flower initiation stage led to the highest plant population per hectare (688.6 thousand/ha)."</p> <p>"morphological characters did not show any significant variation" could be rephrased as "morphological characteristics did not exhibit significant variation."</p> <p>The sentence "Plant growth regulator helps in several physiological processes within plant including stem elongation, shoot development" could be clearer: "Plant growth regulators play a role in various physiological processes within the plant, including stem elongation and shoot development."</p> <p>In the second paragraph of the "Yield attributes, Yield and Economics of the study" section, consider rephrasing "Better yield attributes were accumulated from integrated use of auxin and gibberellic acid which resulted in better seed yield of linseed" for greater clarity: "Improved yield attributes were achieved through the integrated application of auxin and gibberellic acid, resulting in a higher seed yield for linseed."</p>	
<p>Optional/General comments</p>	<p>I believe that a more comprehensive inclusion of citations and a thorough review of existing literature could significantly enhance the overall quality and impact of the research.</p> <p>The author needs to engage more deeply with the existing literature which will likely lead to a stronger, more well-rounded research article.</p> <p>Rephrase the term for "The ultimate objective".</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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