Review Form 3

Journal Name:	**Journal of Scientific Research and Reports**
Manuscript Number:	**Ms_JSRR_124900**
Title of the Manuscript:	**Influence of plant growth regulators on growth, seed yield, quality and economics of Coriander (Coriandrum sativum L.) cv. Jawahar Dhaniya-10**
Type of the Article	**Research**

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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)*
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.	This manuscript is important for the scientific community as it identifies optimal concentrations of plant growth regulators (PGRs) that enhance coriander growth, yield, and economic returns. It provides practical insights for improving coriander productivity, benefiting both research and agriculture. I appreciate the study's comprehensive approach, though the discussion could be more concise in some sections.	
Is the title of the article suitable? **(If not please suggest an alternative title)**	**Yes**	
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.	Following changes required: **Scientific Corrections:** 1. **Consistency in units**: Ensure consistent usage of units (e.g., ppm, q ha-1). While "q ha-1" is commonly used, it is better to use "kg ha-1" or "tons ha-1" for clarity. 2. **Clarification of treatments**: Define each PGR treatment clearly in the methodology. For example, state why specific concentrations of the PGRs were chosen and whether they are based on prior studies. 3. **Improved clarity on results**: The results could be further clarified. For example, it might be beneficial to state if the differences in growth, yield, and quality were statistically significant. 4. **Relevance of economics**: Provide more information on how the economics (net return and benefit-cost ratio) were calculated, such as key parameters considered (e.g., input costs, market price of coriander). **Grammatical Corrections:** 1. **Verb consistency**: Change "was conducted" to "was performed" or "was carried out" for smoother reading. o *"An experiment was carried out during the Rabi (October–March, 2021–22)..."* 2. **Redundancy**: The sentence "The experiment was designed using a Randomized Block Design..." can be simplified to "A Randomized Block Design was used with three replications..." o *"A Randomized Block Design with three replications was used, including nine PGR treatments..."* 3. **Parallel structure**: In listing treatments, ensure parallel construction for readability. o *"...Salicylic acid (50 and 100 ppm), Jasmonic acid (50 and 100 ppm), Benzyl Adenine (10 and 20 ppm), and Brassinosteroid (0.5 and 1.0 ppm), with water spray as a control."* 4. **Improved transitions**: The transition between growth and yield parameters needs more cohesion. Consider adding connectors like "In terms of growth," and "Regarding yield attributes." o *"In terms of growth, Jasmonic acid at 50 ppm significantly increased plant height (111.97 cm) and number of branches per plant (9.33). Regarding yield attributes, the highest values for the number of umbellets per umbel (7.62)..."* 5. **Article usage**: "Plant height" and "number of branches per plant" should include "the" before them for precision. o *"...achieving the highest plant height (111.97 cm) and the number of branches per plant (9.33)."* 6. **Comma usage**: Add a comma before "followed by Brassinosteroid at 1.00 ppm." o *"...20 ppm Benzyl Adenine, followed by Brassinosteroid at 1.00 ppm (16.89 q ha-1 yield)."*	
Are subsections and structure of the manuscript appropriate?	Add following sections: 1. Limitations of Study 2. Future Aspects	

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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.	Following changes required: **Introduction:** **Scientific Corrections:** 1. **Unclear citation placement**: The phrase "Coriander (Coriandrum sativum L.) was first cited in the Ebers papyrus in 1550 BC [1]" needs clearer scientific relevance or more context. Mention its historical usage more clearly, e.g., medicinal or culinary importance. o Suggested: "Coriander (Coriandrum sativum L.), cited in the Ebers papyrus in 1550 BC, is one of the oldest and most widely used seed spices globally [1]." 2. **Incomplete botanical description**: While you describe the plant's characteristics, the relevance to the study is unclear. Why is its botanical structure important to mention in the context of PGRs? Either clarify or shorten this section. 3. **Clarify the role of PGRs**: The explanation of PGRs can be made more focused by directly linking their application to coriander. o Suggested: "Plant growth regulators (PGRs) are applied to crops like coriander to enhance growth, yield, and quality by affecting physiological processes such as nutrient uptake and water management [3]." 4. **More specific description of each hormone**: Ensure the importance of each hormone is connected to coriander's growth response (e.g., does it improve seed yield, vegetative growth, etc.?). The physiological benefits mentioned (e.g., photosynthetic efficiency) should be linked to coriander more explicitly. 5. **Clarify research gap**: Make it more explicit that research on PGRs in coriander is limited, and state more clearly what has or hasn't been done before. o Suggested: "Despite the known effects of PGRs on other crops, research on their effects on coriander remains limited. This study addresses this gap..." **Grammatical Corrections:** 1. **Sentence structure**: The first sentence is awkwardly constructed. Combine or split it for clarity. o Suggested: "Coriander (Coriandrum sativum L.) is one of the oldest and most widely used seed spices, first cited in the Ebers papyrus in 1550 BC [1]." 2. **Subject-verb agreement**: In "Coriander (Coriandrum sativum L.)... is one of the oldest and most widely used..." the verb "is" should refer to "Coriander" (the first subject), but the structure is ambiguous. Rephrase for clarity. 3. **Tense consistency**: Ensure consistent verb tense. For example, "leaves are rich" should remain in the present tense, but past actions should use the past tense. o Suggested: "Coriander leaves *are* rich in vitamins, and [2] *reported* that..." 4. **Punctuation**: After "Coriander leaves are rich in vitamins, minerals, and iron," the next sentence starts with "[2] reported...". Remove the period after "iron." o Suggested: "...rich in vitamins, minerals, and iron [2], reporting that they are rich in vitamin A..." 5. **List format**: When listing PGRs, avoid long, wordy sentences by breaking them up into separate clauses or bulleted lists (if possible). o Suggested: "The study focuses on foliar sprays with Salicylic acid, Jasmonic acid, Benzyl Adenine, and Brassinosteroid at varying concentrations..." 6. **Transition between sections**: Use smoother transitions between the botanical description of coriander and the introduction of PGRs. o Suggested: "In addition to its nutritional benefits, coriander's growth and yield can be influenced by external factors such as plant growth regulators (PGRs)." 7. **Conjunctions**: Avoid using "whereas" in lengthy comparative sentences. Break them up into shorter, clearer statements. o Suggested: "Different hormones regulate a variety of plant processes, and sometimes a single process is regulated by multiple hormones." **Methodology:** **Scientific and Methodological Corrections:** 1. **Clarify PGR Concentrations**: For the PGR concentrations, specify that these concentrations are final working concentrations in the field, to avoid confusion with stock solutions. o Suggested: "Final working concentrations of PGRs were used for foliar application." 2. **Preparation of PGR solutions**: The section on PGR preparation should more explicitly mention the intermediate steps to ensure clarity in the method.	

	o Suggested: Include the step to confirm that all solutions are mixed thoroughly, and check the pH if relevant to foliar application efficacy. 3. **Define abbreviations**: The first mention of "FYM" should be followed by its full form (Farmyard Manure). o Suggested: "The crop was fertilized with 1 t of FYM (Farmyard Manure) along with NPK @ 20:40:30 kg ha-1." 4. **Fertilizer dose clarity**: The sentence about the top dressing of fertilizer should specify which nutrient was top-dressed. o Suggested: "The remaining 3/4th dose of nitrogen (40 kg ha-1) was top dressed at 30 and 60 days after sowing." 5. **Missing reference to statistical analysis**: Mention the software used for statistical analysis (MS-EXCEL) earlier and specify what statistical methods were used. o Suggested: "The data were analyzed using MS-EXCEL software with critical difference (CD) for comparing treatment means." **Grammatical and Structural Corrections:** 1. **Title consistency**: Ensure consistency in headings. The "Study site" can be renamed to "Experimental Site" for clarity and alignment with scientific norms. o Suggested: Change "Study site" to "Experimental Site." 2. **Verb consistency**: Maintain verb tense consistency throughout the section. o Example: In "Foliar application was done twice," use "Foliar application was conducted twice." 3. **Comma usage**: Remove redundant commas, particularly in the coordinates. o Suggested: "The site is located at 23˚10' N latitude and 79˚59' E longitude." 4. **Measurement units**: Ensure consistency in units, such as "cm" and "ppm." There is a double "cm" in the plant spacing section. o Suggested: "...at approximately 10 cm." 5. **Formatting**: In the molecular weights section, the hyphenation is inconsistent, such as "13.812 mg-1." It should be "mg l-1." 6. **Redundant terms**: In the sentence "cm. cm.," there is a double usage of "cm." o Suggested: "...to maintain a plant-to-plant distance of approximately 10 cm." 7. **Sentence structure**: Break up long sentences for better readability. o Suggested: "To prepare the land for coriander germination, ploughing and harrowing were carried out to achieve a fine tilth. Ploughing was performed twice in two directions using tractor-drawn implements, followed by harrowing to break up clods." **Results and Discussion:** **Scientific Changes:** 1. **Citations in Line with Findings**: In some cases, citations are used without directly explaining how they connect to the findings, making the flow less clear. Ensure that each citation is directly linked to the context, and briefly explain its relevance. o Example: For citations [16], [17], etc., explicitly relate the findings of these studies to your experiment for better coherence. 2. **Clarification on Statistical Significance**: In the discussion of data, it's important to highlight whether the differences are statistically significant where applicable, especially when comparing treatments. 3. **Additional Details for Economic Analysis**: The economic analysis section lacks specific data on inputs and profits. If possible, include quantitative data to support the net returns and B ratio claims. **Grammatical and Structural Changes:** 1. **Tense Consistency**: Use consistent tense, preferably past tense, when discussing results. o E.g., "The results indicate" should be "The results indicated." 2. **Sentence Simplification**: Some sentences are complex and could benefit from simplification for better readability. o E.g., "This was followed by 100 ppm SA (Salicylic Acid) with a plant height of 108.31 cm..." can be simplified to "The next best result was 100 ppm SA, with a plant height of 108.31 cm..." 3. **Avoid Repetition**: There's redundancy in the description of certain values. o Example: "The number of umbels plant-1, umbellets umbel-1, seeds umbel-1" is mentioned multiple times in different ways. Streamline the discussion.	

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	4. **Subject-Verb Agreement**: Ensure correct subject-verb agreement. o E.g., "The cost-benefit analyses **was** performed" should be "The cost-benefit analyses **were** performed." 5. **Grammar in Citations**: Citations like "[19], [20] in Cumin and [21] in Long pepper" should be grammatically structured to clarify that the results pertain to these crops. **Example Changes:** • Original: *"This aligns with previous research by [16], which highlighted the role of jasmonates in promoting cell growth and development."* o Change: *"These results align with previous research by [16], which highlighted the role of jasmonates in promoting cell growth and development in similar crops."* • Original: *"The control treatment also took the maximum time to reach 50% flowering (66.33 days)."* o Change: *"The control treatment took the longest to reach 50% flowering (66.33 days)."* **Conclusions:** 1. Needed to be more justified and briefer. 2. Write abbreviations at end of tables 3. Cite tables within manuscript	
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form. **-**	**Suggested** to add following citation at "Plant growth regulators (PGRs) are organic compounds, other than nutrients": 1. Basit, A., Akram, M., Khan, K., Kainat, M., Rehim, A., & Bashir, M. (2024). *Biostimulants impact on agronomic traits of fortnight harvested Zea mays* (Vol. 1 (2)). Journal of agriculture and livestock farming. doi:10.61577/jalf.2024.100009	
Minor REVISION comments **Is the language/English quality of the article suitable for scholarly communications?**	Yes	
Optional/General comments	Enlisted changes are required. There do not appear to be any significant ethical issues in this manuscript, as it focuses on standard agricultural practices involving plant growth regulators (PGRs) and their effects on coriander. The study follows appropriate scientific protocols, including the use of commonly available PGRs and standard agronomic methods. However, it is essential to ensure the responsible use of PGRs in agriculture, taking into account environmental impacts and human health, but no major ethical concerns arise from this specific research.	

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)*
Are there ethical issues in this manuscript?	*(If yes, Kindly please write down the ethical issues here in details)*	

Reviewer Details:

Name:	**Abdul Basit**
Department, University & Country	**Pakistan**