Review Form 1.7

Journal Name:	**International Journal of Environment and Climate Change**
Manuscript Number:	**Ms_IJECC_105120**
Title of the Manuscript:	**Effect of different sowing dates and planting distance on growth, yield and quality of China aster (Callistephus chinensis L.)**
Type of the Article	**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.journalijecc.com/index.php/IJECC/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)*
Compulsory REVISION comments 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.** **(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)**	1. **Is the manuscript important for scientific community?** The research can indeed be important for the scientific community as well as in the agriculture sector, especially for horticultural and floricultural practices. Here are some reasons why this research could be valuable: Optimizing Planting Practices: Determining the best sowing dates and planting distances for a specific crop like China aster can contribute to optimizing plant growth, yield, and quality. This information can guide farmers in making informed decisions to achieve higher productivity. Scientific Knowledge: Research in agricultural sciences contributes to the scientific understanding of plant behavior and responses to varying conditions. This knowledge can lead to the development of more advanced cultivation techniques and strategies. However, there are aspects that could be improved in the research such as replicability, data presentation, statistical significance, comparison and discussion, practical implications as well as future directions. 2. **Is the title of the article suitable?** The title appears to be suitable based on the information provided in the abstract. The title accurately reflects the primary focus of the research, which is investigating the impact of varying sowing dates and planting distances on the growth, yield, and quality of China aster plants. 3. **Is the abstract of the article comprehensive?** The abstract provides a clear overview of the study's objectives, design, and findings. However, there are a few areas where additional information and clarification could enhance the abstract's overall quality: - Title and Scope Clarity: The title is informative, but it might be improved by adding a bit more detail. For instance, you could consider including the specific focus of the study, such as the geographic region where the research was conducted. - Introduction and Context: The abstract starts by mentioning that the investigation aims to determine the optimal planting time and spacing for China aster. Including a brief sentence or two on why this research is important or what knowledge gaps it addresses could provide context for readers. - Methodology: While the abstract mentions the Randomized Complete Block Design and the number of treatments and replications, it would be helpful to briefly touch on the size of the experimental plots and any controls used to provide a more complete understanding of the experimental setup. - Sowing Dates: Clarify the duration of the study by mentioning the end date of the Rabi season in 2022, as this would give readers a better idea of the study's time frame. - Spacing: It's important to provide context about the chosen planting distances. What were the reasons for selecting these specific distances? Were they commonly used in previous research or agricultural practices? - Results and Impact: While the abstract highlights that "Treatment T1" (sowing in the 1st week of October with a planting distance of 30 x 20 cm) performed the best, it would be	

useful to provide a glimpse into the specific outcomes. Did this treatment result in better growth, higher flower yield, or improved flower quality? Also, consider mentioning any statistical significance or effect sizes observed.

- Implications and Applications: Concluding the abstract with a sentence on the practical implications of the findings could give readers a sense of how the study's results could impact agricultural practices or research in the field.

- Language and Clarity: There are some minor grammatical errors ("This experiment reviled that that Treatment T1..."). Proofreading the abstract to eliminate such errors will enhance its professionalism.

- In summary, the abstract provides a good outline of the study, but by expanding on certain points and clarifying others, you can offer readers a more comprehensive understanding of the research's significance and implications.

4. Are subsections and structure of the manuscript appropriate?

Introduction:The introduction provides a comprehensive overview of the significance of China Aster as an ornamental flowering plant, including its botanical background and its relevance in horticulture. It also highlights the importance of sowing dates and climatic conditions on flower quality, citing relevant studies to support the assertions. The connection between optimal temperature, photoperiod, and flower quality is well explained.

However, it could further emphasize the gap in knowledge that this study aims to fill. Additionally, a brief mention of how the current research contributes to the existing body of knowledge and how it aligns with the broader agricultural goals would enhance the introduction. Adding a bit more literature review in the introduction part could enhance the context and depth of the research. The literature review should be concise and focused on studies directly relevant to the research topic.

Materials and methods: The description of the research site and location provides essential context for readers to understand where the experiment was conducted. However, for clarity, you might consider providing the measurements (in centimeters) of the planting distances alongside their respective treatment codes. Additionally, providing a brief explanation for why these specific planting distances were chosen could give readers insight into the rationale behind the experimental design.

Please explain on how data were collected and what specific parameters were measured could provide a more complete picture of the research methodology. Please also include how the statistical analysis was conducted.

Results and discussion: The "Results and Discussion" section presents findings from the experiment related to different growth and floral parameters of China aster, along with interpretations and comparisons to relevant literature. The section is informative, but there are some aspects that could be improved to enhance clarity and organization:

- Structure and Subheadings: The section would benefit from clearer subheadings
- Data Presentation: Consider using tables or figures to present the recorded data for each parameter and mentioning the statistical analysis. Please include the unit (centimetre etc.) in the table.
- Consistent Terminology: Maintain consistency in terminology. For instance, you've used both "plant spread" and "plant height" in the discussion of chlorophyll content. Ensure that the terminology accurately reflects the parameter under discussion.
- Interpretation and Context: While you've provided interpretations of the results, consider delving deeper into the underlying reasons for the observed trends. What physiological processes might explain these outcomes? How do they align with previous studies? Providing more context and explanations will enrich the discussion.

	- Discussion of Non-Significant Interactions: When interactions are non-significant, briefly discuss the potential reasons behind these findings. Could it be due to the experimental setup, the specific conditions, or other factors? - Citations and Comparisons: When referring to previous studies, provide a brief context or rationale for each comparison. How do the results of your study compare to those of others? What insights can be gained from these comparisons? - Citation of Studies: When citing previous studies, provide a brief context or summary of each study's findings. How do these findings relate to your own results? This will add depth to your comparisons. - Standard Units and Formatting: Ensure that measurement units (e.g., cm, SPAD units) are consistently presented and used throughout the discussion for clarity. Additionally, double-check spelling and formatting to maintain a professional presentation. - Logical Flow: Ensure a logical flow within each subsection. Present the findings, provide interpretation, compare with literature, and discuss implications in a coherent sequence. - Consistency in Units: Ensure consistent use of units throughout the section, both in the text and any presented data. The conclusion provided is concise and highlights the main findings of the study. However, there are a few ways you could enhance the conclusion to make it more informative and comprehensive: Summarize Key Results: Instead of just mentioning "performed best," provide specific values or ranges for each parameter that were observed in Treatment (T1). For example, you could state the exact plant height, plant spread, number of leaves per plant, flower yield, and quality attributes like color, shelf life, and vase life that were achieved in Treatment (T1). Contextualize the Findings: Briefly discuss how the results of Treatment (T1) compare to the other treatments. Did Treatment (T1) significantly outperform the other treatments in all aspects, or were there certain parameters where it excelled? This provides a more nuanced understanding of the study outcomes. Discuss Practical Implications: Highlight the practical significance of the findings. How can these results benefit growers, horticulturists, or the floral industry? For instance, do the results suggest specific recommendations for optimizing China aster cultivation in terms of sowing dates and planting distances? Relation to Existing Knowledge: Relate the findings to existing literature or previous research. How do the results align or differ from what's been reported before? This can provide a broader context for the study's contributions. Limitations and Future Directions: Mention any limitations of the study that might affect the generalizability of the results. Are there any factors that were not considered but could influence the outcomes? Additionally, suggest potential areas for future research that could build upon these findings. **5. Do you think the manuscript is scientifically correct?** The manuscript appears to be scientifically correct in terms of its methodology, data presentation, and interpretations. The authors have conducted an experiment to study the effects of different sowing dates and planting distances on various growth and floral parameters of China aster. The author needs to address the above suggestion, and it can become even more coherent, informative, and engaging for readers, allowing them to understand and appreciate the outcomes of the study more thoroughly.	

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	6. Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.	
Minor REVISION comments **1. Is language/English quality of the article suitable for scholarly communications?**	Proofreading the article to eliminate too much errors will enhance its professionalism.	
Optional/General comments		

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:

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