

Review Form 1.7

Journal Name:	International Journal of Environment and Climate Change
Manuscript Number:	Ms_IJECC_112227
Title of the Manuscript:	Growth and yield of Sugarcane (Saccharam officinarum) as influenced planting geometry with different planting materials
Type of the Article	

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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"> Is the manuscript important for scientific community? (Please write few sentences on this manuscript) Is the title of the article suitable? (If not please suggest an alternative title) Is the abstract of the article comprehensive? Are subsections and structure of the manuscript appropriate? Do you think the manuscript is scientifically correct? 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"> The manuscript is important for scientific community. The manuscript is interesting for dissemination in the scientific community. However, it lacks careful methodological procedures and writing so that the reader benefits from the research results. The title of the article is suitable. The abstract of the article is comprehensive. Are subsections and structure of the manuscript appropriate? The manuscript is not scientifically correct. The references are sufficient and recent. <p><u>Additional suggestions/comments</u></p> <p><u>Tables</u></p> <p>Table 1. Include footnote for S.Ed; CD. Describe in a footnote the meaning of T1 T2 ...T5.</p> <p><u>Figures</u></p> <p>Figure 1. Figure 2.</p> <p><u>Abstract</u></p> <ol style="list-style-type: none"> “However, when considering single cane weight, commercial cane sugar percentage, gross income, and benefit-cost ratio, the 5 x 2 ft planted crop outperformed, showcasing higher cane yield in comparison to other treatments” The tables and figures do not present data to evaluate cost-benefit. <p>“Key words: Sugarcane, Planting geometry, Gross income, benefit cost ratio” Tables and figures do not present data for Gross income and benefit cost ratio”</p> <p><u>Introduction</u></p> <ol style="list-style-type: none"> None commentaries <p><u>Materials and methods</u></p>	

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	<p>“The experimental design employed a Randomized Block Design with four replications”</p> <p>What software is used?</p> <p>Results and discussion</p> <p>“The experiment results unveiled a notable advantage for seedlings raised in portrays with chip buds ...”</p> <p>Does Chip buds refer to T4 5x2 and T5 5x1 treatment?</p> <p>The text is confusing to understand since it is difficult to identify Chip bus with the description in Table1.</p> <p>“In contrast to the conventional method (T1) involving single and double budded setts, the chip bud seedlings (T4) exhibited higher tiller numbers per clumb ?, a greater number of total millable canes, and increased cane weight. The planting of sprouted seedlings yielded an impressive cane output of 111.07 t/ha (Figure2), surpassing the results obtained from single (T2?) and double budded setts (T3?). This can be attributed to factors such as the higher conversion rate of millable canes, greater single cane weight, and elevated commercial cane sugar content associated with the transplantation of seedlings (Figure 1 e Figure 2?).”</p> <p>In order to help the reader understand the text, I suggest indicating the treatments.</p> <p>“These findings align with those reported by Ramesh in [6] 1999. The observed lower cane yield when using conventional seed materials (single and double budded setts: T1) may be attributed to factors such as reduced germination rates and poor field-level establishment with diminished vigor.</p> <p>I believe that these findings are presented in another table that was not included in the text.</p> <p>“The experimental results revealed a significant impact of different planting geometries, including conventional (T1), 5 x 2 ft single row (T2), and 5 x 1 ft double row (T5) configurations, on tiller count and millable canes (Table 1). Tiller numbers were notably higher in the 5 x 1 ft double row (168.14:T5) and conventional planting methods (126.37:T1) compared to the single row planting (106.35:T2, 5 x 2 ft), possibly due to the narrower plant-to-plant spacing (30 cm) in the former. However, despite the closer spacing, the double row planting (T5 ?) tripled the population per unit area.”</p> <p>The results are not significant.</p> <p>In order to help the reader understand the text, I suggest indicating the treatments.</p> <p>“In terms of cane yield, the transplanted 5 x 2 ft single row (T4) crop exhibited superior performance, recording higher cane yield (111.07 t/ha, Figure 2), CCS % (13.05% ?), and sugar yield (14.49 t/ha) (T4), along with a higher B:C ratio (1:2.50).” (Figure 1).</p> <p>In order to help the reader understand the text, I suggest indicating the treatments.</p> <p>Conclusion</p> <p>“The treatments exhibit varying impacts on key parameters, revealing Treatment T4 as the most promising for optimizing sugarcane production. Transplanting of chip budded seedlings with 5 x 2 ft stands out with exceptional germination rates at 91.7%, fostering a robust plant population and vigorous growth, reflected in a commendable plant height of 4.62 m at harvest (Table 2)”.</p> <p>Put this text in the results</p> <p>“Additionally, Transplanting of chip budded seedlings with 5 x 2 ft spacing (T4) excels in tiller population, millable cane density, and cane yield, surpassing other treatments with values of 121.59 tillers 1000/ha, 88.15 millable canes 000/ha (Table1), and an impressive 111.07 t/ha (figure2), respectively. The treatment also demonstrates superior sugar-related metrics, boasting a high CCS of 13.05%, leading to a substantial sugar yield of 14.49 t/ha (Figure2). Economic viability is evident with the highest B:C ratio of 2.50 (Figure 2)”</p>	
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	<p>Put this text in the results</p> <p>“Furthermore, the inclusion of sprouted chip-budded seedlings after 30 days proves advantageous, reducing the crop duration by a month”</p> <p>This statement is not shown by data in the results.</p> <p>I suggest putting it in the conclusion:</p> <p>This study aimed to investigate the impact various procedures for planting sugar cane such as single budded setts, double budded setts, and transplanting of sprouted seedlings. The results showed that wider row and transplanting of chip budded seedlings with 5 x 2 ft spacing not only reduce seed material costs but also support improved air and sunlight penetration, promoting healthier cane growth. These insights provide valuable guidance for optimizing agricultural practices, emphasizing treatment transplanting of chip budded seedlings with 5 x 2 ft spacing as a comprehensive and economically sound choice for enhancing sugarcane production and economic returns.”</p>	
<p>Minor REVISION comments</p> <p>1. Is language/English quality of the article suitable for scholarly communications?</p>		
<p>Optional/General 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>	

Reviewer Details:

Name:	Haydée Serrão Lanzillotti
Department, University & Country	State University of Rio de Janeiro, Brazil