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Journal Name:	International Journal of Plant & Soil Science
Manuscript Number:	Ms_IJPSS_27131
Title of the Manuscript:	Mechanical strengths, Hydraulic Sonductance and Growth of Passiflora edulis f. edulis grafted on five different rootstocks at three different cleft lengths in Nakuru Kenya.
Type of the Article	Original research papers

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:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



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PART 1: Review Comments

	Reviewer's comment	Author's comment <i>(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)</i>
<u>Compulsory</u> REVISION comments	<p>Overall it is an interesting research results. However, the following recommendations are attached for a better understanding of the results, discussion, conclusions and prospects and scope of the investigation.</p> <p>The suggestions are themselves know the following:</p> <p>Abstract</p> <p>Is recommended that the overall objective of the investigation into the abstract.</p> <p>Introduction</p> <p>1. If there are reports related to the theme developed in this research, it is recommended to include behavioral reports of graft and rootstocks resistant to <i>Fusarium</i> and their interaction with the mechanical strength: vertical shear, horizontal shear, hydraulic conductance and growth. Otherwise, the background included in this document would be misaligned with the purposes of the investigation given that lead to contextualize the reader with the purposes of the investigation.</p> <p>2. It is recommended after review of the state of the art (background) include the hypothesis or research question and subsequently the overall objective of research.</p> <p>Materials and Methods</p> <p>For a better understanding (from step to step methodological) research that may lead to replicate the results it is recommended to submit this chapter with the following structure:</p>	



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	<p>1. Study area: and this must indicate whether the research was conducted in the laboratory, greenhouse or field. It should also include the soil and climatic characteristics of the study area and georeferencing.</p> <p>2. If possible we recommend writing this chapter for methodological stages, that is to say:</p> <ul style="list-style-type: none"> ✓ Study Area ✓ Stage I: Germination and / or preparation of the seed. At this stage include the ability planting containers, the amount of land used, the treatment was done to the soil before planting. ✓ Stage II: Selection and preparation of grafts and rootstocks. ✓ Stage III: Evaluation of parameters: (vertical rupture, horizontal tensile strength, hydraulic conductance, growth) is recommended to mention in the strict order in which they were evaluated and preserve this order to present the results and discussion. ✓ Experimental design and statistical analysis. <p>3. In the experimental design the authors mention that a design was randomized complete block; it is recommended and explicitly mention the blocks which were analyzed levels within blocks and the number of replicates had each treatment.</p> <p>4. Question and information evaluator: The methodology used to evaluate hydraulic conductance in <i>Passiflora</i> is typical of the authors? Otherwise:</p> <ul style="list-style-type: none"> ✓ It is recommended to include bibliographic references where it was reported and whether the authors performed modification thereof. ✓ With respect to the hydraulic conductance and the way in which the authors evaluate it is clear that the results obtained using this methodology could not be precise because you can not guarantee with absolute certainty that no water lost through processes of evapotranspiration. <p>5. The overall objective proposed by the authors undertook to evaluate the growth of <i>Passiflora</i> given that both nutrient absorption and growth is directly related to the hydraulic conductance. However, this chapter is methodologically unclear how this parameter was evaluated. Therefore, the authors recommend including how it was</p>	
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	<p>done the evaluation of this parameter.</p> <p>Results</p> <p>For a better understanding and appurtenances of the results obtained in this research it is recommended:</p> <ol style="list-style-type: none"> 1. Present the results with the same structure recommended in Materials and Methods. 2. This would allow a better understanding of them by readers, facilitate compare the results with other research in areas related or thematic lines and facilitate replicate the results obtained here in other research. 3. In this chapter alone is referenced in the text tables 1, 3 and 4. <p>Discussion</p> <p>For a better understanding and belongings of the discussion conducted in this research it is recommended:</p> <ol style="list-style-type: none"> 1. Present discussion with the same structure recommended in Materials and Methods and Results. 2. This would allow a better understanding of them by readers, facilitate discuss the results with other research in areas or thematic related. <p>3. Question and evaluator information: Based on the discussion of results in the different treatments:</p> <ul style="list-style-type: none"> ✓ According to the wind in a given production area <i>Passiflora</i> the results of this research could help select which graft is better relative to each other?. ✓ The authors claim that the rate of healing of the graft is directly related to the strength of the graft union to the rootstock. This result as it relates to the proposed objective? Since it does not correspond with parameter to a methodology evaluated and is not connected with the results. ✓ When the authors state that: a greater depth of graft greater mechanical resistance to the authors recommended clarify what implications the results to be taken into account. ✓ In the discussion (lines 271-276) the authors refer to Table 2 and the data 	
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	<p>that they report are not listed in the table above, or at least it is not clear to the reader.</p> <p>4. The authors suggest the following statements :</p> <ul style="list-style-type: none"> ✓ Water is the means of transport of nutrients from the soil to the leaves. ✓ In grafts water movement affected. ✓ The contact between the graft and rootstock affects formation cambium. ✓ The bond strength depends on the graft surface contact between the graft and pattern. <p>Question and evaluator information: These claims are true, however:</p> <ul style="list-style-type: none"> ✓ In the present study a histological study that would show the statements made was made? ✓ Authors are recommended (given that one of the parameters to be evaluated in this research was the growth of <i>Passiflora</i> and that growth is related to the hydraulic conductance and absorption of nutrients) include data from biomass and/or foliar analysis macro and / or micronutrients. ✓ This is recommended by the evaluator given that the size is not always directly related to better nutrition. <p>5. Discussion of results aims to guide, contribute to the knowledge of the scientific community and in particular case the growing community <i>Passiflora</i>.</p> <p>6. The discussion of results aims to confront our results with investigations and that our results can be extrapolated global level and reproducible.</p> <p>7. Based on these details the evaluator conceptualizes that the discussion of this investigation should be presented with more scientific robustness. Because the authors discuss their results so nascent, comparison with other relevant research results related to the topics addressed is low.</p> <p>Conclusions and recommendations</p> <ul style="list-style-type: none"> ✓ The conclusions do not cover fully the intentions of the proposed objective. ✓ The recommendations remain in the local and / or regional, these should be expressed universally ie authors should say what the present and future 	
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	<p>prospects of the results are.</p> <ul style="list-style-type: none"> ✓ Emphasize what are the significant contributions of these results worldwide in various production centers of <i>Passiflora</i>. ✓ In other <i>Passiflora</i> producing areas where wind speed which would be similar or larger grafts and rootstocks to use. 	
Minor REVISION comments	<p>References With regard to bibliographic citations made by the authors, the evaluator makes the following points: From 9 references reported:</p> <ul style="list-style-type: none"> ✓ 2 References (2004), ✓ 1 Reference (2006), ✓ 1 Reference (2016), ✓ Other references are the years old 1961 , 1979 , 1985 , 1961 , 1993, 1994 (with respect to the issue of obsolete research) <p>Therefore,</p> <ul style="list-style-type: none"> ✓ There is a gap in bibliographic reports dating back a decade. ✓ This may be because a thorough search of the background related to the topic of research was performed. ✓ If the search was sufficient information authors should make precision that their research is a pioneer in its field. ✓ It seems unlikely to have 10 years of zero contributions on the topics addressed. ✓ What would be the significant contributions of this research compared to other research areas or thematic lines related? 	
Optional/General comments		

Reviewer Details:

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