

**Review Form 3**

Journal Name:	<a href="#">Journal of Advances in Biology &amp; Biotechnology</a>
Manuscript Number:	Ms_JABB_124329
Title of the Manuscript:	<b>Correlation and Regression Analysis between Agronomic and Quality Attributes of Apple (<i>Malus × domestica</i> Borkh.) cv. Anna</b>
Type of the Article	

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**PART 1: Review Comments**

Compulsory REVISION comments	Reviewer's comment	Author's Feedback <i>(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
<p>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.</p>	<p><b>The manuscript titled "Correlation and Regression Analysis between Agronomic and Quality Attributes of Apple (Malus x domestica Borkh.) cv. Anna" holds significant importance for the scientific community for several reasons:</b></p> <p>This study presents original findings on the relationships between various agronomic and quality attributes of the "Anna" apple cultivar, which have not been previously published. This adds valuable data to the existing body of knowledge in horticulture and agronomy</p> <p>Predictive Tools for Yield Improvement: The linear regression equations derived from the study provide practical tools for predicting apple yield based on specific fruit quality and nutrient parameters. This can aid researchers and practitioners in developing strategies to enhance fruit production, which is crucial for meeting global food demands</p> <p>Understanding Nutrient Impact: The research highlights the varying degrees of influence that different nutrients have on fruit yield. For instance, while nitrogen showed a moderate positive correlation with yield, other micronutrients like zinc had minimal direct impact. This nuanced understanding can guide future research on nutrient management in apple cultivation</p> <p>In summary, this manuscript not only contributes original data and insights into apple cultivation but also provides a foundation for future research and practical applications in the field of horticulture.</p>	
<p>Is the title of the article suitable? (If not please suggest an alternative title)</p>	<p><b>Yes</b></p>	
<p>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.</p>	<p><b>The abstract of the article provides a brief overview of the study's objectives and methodology, but there are areas where it could be enhanced for clarity and comprehensiveness. Here are some suggestions:</b></p> <ul style="list-style-type: none"> <li> <b>Include Specific Objectives:</b>                      The abstract mentions assessing relationships between fruit yield and various attributes but could benefit from explicitly stating the specific objectives of the study. For example, detailing which growth, yield, and quality attributes were examined would provide clearer context.                 </li> <li> <b>Methodology Details:</b>                      While the abstract notes the use of Pearson correlation coefficients and the duration of the study, it could include more information about the experimental design, such as sample size or specific statistical methods used. This would help readers understand the robustness of the findings                 </li> <li> <b>Key Findings:</b>                      The abstract currently lacks specific results or key findings. Including a summary of the most significant correlations or regression results would give readers insight into the study's outcomes. For instance, mentioning the strong positive association between total soluble solids (TSS) and yield could be highlighted.                 </li> </ul> <p><b>Note- Methodology must be explained in more details as steps are not defined upto the mark.</b></p>	
<p>Are subsections and structure of the manuscript appropriate?</p>	<p><b>Yes</b></p>	

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<p><b>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.</b></p>	<p>The manuscript reports strong correlations between yield and key fruit quality attributes, such as total carbohydrate content (TCC) and total soluble solids (TSS). The high <math>r^2</math> values indicate that these relationships are statistically significant and provide valuable insights into factors influencing apple yield.</p> <p>The analysis includes leaf nutrient content variables, which adds depth to the study. The authors acknowledge the varying degrees of correlation between these nutrients and yield, indicating a nuanced understanding of plant physiology and its impact on fruit production.</p> <p><b>Here are some points which must be taken care while paper writing-</b></p> <ul style="list-style-type: none"> <li>• <b>Focus on Specific Attributes:</b> <ul style="list-style-type: none"> <li>• While the study examines various growth, yield, and quality attributes, it may not encompass all potential factors influencing apple yield. For instance, other environmental variables such as pest pressure, disease incidence, and specific management practices were not considered, which could provide a more comprehensive understanding of yield determinants</li> </ul> </li> <li>• <b>Statistical Limitations:</b> <ul style="list-style-type: none"> <li>• Although the use of Pearson correlation coefficients and regression analysis is appropriate, the study's reliance on these statistical methods may overlook non-linear relationships or interactions among variables. This could lead to an incomplete understanding of the complex dynamics affecting apple yield</li> </ul> </li> <li>• <b>Nutrient Content Analysis:</b> <ul style="list-style-type: none"> <li>• The study reports weak correlations between certain leaf nutrient contents (e.g., zinc) and yield, suggesting minimal direct impact. However, the role of these nutrients in overall plant health and resilience may not be fully captured, indicating a need for further investigation into their indirect effects on yield</li> </ul> </li> </ul>	
<p><b>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</b></p> <p>=</p>	<p><b>Some referenced paper are too old like in 19<sup>th</sup> reference , paper is of 1990, we must use paper of recent years.</b></p> <p><b>Some references are from 2004 also.</b></p>	

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<p>Minor REVISION comments</p> <p><b>Is the language/English quality of the article suitable for scholarly communications?</b></p>	<p>To enhance the robustness and applicability of the findings in the study "Correlation and Regression Analysis between Agronomic and Quality Attributes of Apple (Malus x domestica Borkh.) cv. Anna," several corrections and improvements can be considered:</p> <ul style="list-style-type: none"> <li>• <b>Expand Geographical Scope:</b> <ul style="list-style-type: none"> <li>• Conducting similar experiments in diverse geographical locations with varying climatic conditions can help validate the findings and improve their generalizability. This would allow for a broader understanding of how environmental factors influence apple yield and quality attributes across different regions.</li> </ul> </li> <li>• <b>Incorporate Additional Variables:</b> <ul style="list-style-type: none"> <li>• Future studies could include a wider range of growth and quality attributes, such as fruit size, color, and disease resistance. This would provide a more comprehensive view of the factors affecting yield and help identify additional correlations that may not have been captured in the current study.</li> </ul> </li> <li>• <b>Utilize Advanced Statistical Methods:</b> <ul style="list-style-type: none"> <li>• Employing more sophisticated statistical techniques, such as multivariate analysis or machine learning approaches, could uncover complex relationships and interactions among variables that simple correlation and regression analyses might miss. This would enhance the understanding of the dynamics affecting apple yield.</li> </ul> </li> <li>• <b>Long-term Study Design:</b> <ul style="list-style-type: none"> <li>• Implementing a long-term study design would allow researchers to observe trends and variations in yield and quality attributes over multiple growing seasons. This could provide insights into the sustainability of the findings and their applicability over time.</li> </ul> </li> <li>• <b>Detailed Nutrient Analysis:</b> <ul style="list-style-type: none"> <li>• A more thorough investigation into the role of micronutrients, including their indirect effects on yield and overall plant health, could be beneficial. This might involve studying the interactions between different nutrients and their collective impact on apple quality and yield.</li> </ul> </li> <li>• <b>Consider Environmental Factors:</b> <ul style="list-style-type: none"> <li>• Including environmental factors such as pest and disease management practices, soil health, and irrigation methods in the analysis could provide a more holistic view of the factors influencing apple yield. This would help in developing integrated management strategies for apple cultivation.</li> </ul> </li> </ul>	
<p><b>Optional/General</b> comments</p>		

**PART 2:**

	<p><b>Reviewer's comment</b></p>	<p><b>Author's comment</b> (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>
<p><b>Are there ethical issues in this manuscript?</b></p>	<p><i>(If yes, Kindly please write down the ethical issues here in details)</i></p>	

**Reviewer Details:**

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