

## Review Form 1.7

Journal Name:	<b>International Journal of Plant &amp; Soil Science</b>
Manuscript Number:	<b>Ms_IJPSS_103184</b>
Title of the Manuscript:	<b>Correlation and path coefficient analysis for yield and yield attributing traits In Rice (Oryza sativa L.)</b>
Type of the Article	<b>Original Research Article</b>

### **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.journalijpss.com/index.php/IJPSS/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)
<p><b>Compulsory</b> REVISION comments</p> <p>1. <b>Is the manuscript important for scientific community?</b> (Please write few sentences on this manuscript)</p> <p>2. <b>Is the title of the article suitable?</b> (If not please suggest an alternative title)</p> <p>3. <b>Is the abstract of the article comprehensive?</b></p> <p>4. <b>Are subsections and structure of the manuscript appropriate?</b></p> <p>5. <b>Do you think the manuscript is scientifically correct?</b></p> <p>6. <b>Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.</b></p> <p><b>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</b></p>	<p>This article is important for scientific community.</p> <p>The objective was to investigate the correlations among yield and yield component traits and estimate the direct and indirect effects of these traits on grain yield in rice. The experiment was conducted during <i>khari</i> 2022. Correlation coefficients and path coefficients were analyzed to determine the relationships between these traits and seed yield. The results showed significant positive correlations between seed yield and traits such as effective tillers per plant, total tillers per plant, number of filled grains, spikelet fertility, biological yield, harvest index, and 100 seed weight. The genotypic correlations were slightly higher than the corresponding phenotypic correlations. Path coefficient analysis revealed that biological yield had the maximum direct effect on seed yield, followed by harvest index, panicle length, and number of filled grains per panicle, plant height, and effective tillers per plant, 100 seed weight, and days to 50% flowering. These findings provide valuable information for selecting superior cross combinations in hybrid rice breeding programs to improve grain yield.</p> <p>The title of the article is suitable.</p> <p>The abstract of the article is comprehensive.</p> <p>Subsections and structure of the manuscript are appropriate.</p> <p>The manuscript is scientifically correct.</p> <p>References sufficient and recent.</p>	
<p><b>Minor</b> REVISION comments</p> <p>1. <b>Is language/English quality of the article suitable for scholarly communications?</b></p>	<p>English quality of the article suitable for scholarly communications.</p>	
<p><b>Optional/General</b> comments</p>	<p>Approximately 90% of the world's rice is grown and consumed in Asia, with rice providing food for 50% of the population (Yugandhar et al)[1]</p> <p>understanding the complex relationships between various yields attributes and their correlation with overall yield becomes crucial for effective crop management and breeding programs. (Dhurai et al)[2] Yield</p> <p>to select ideal plant type with increased yield. (Thakur et al)[3]. The</p> <p>These results are in the agreement with the finding of Selvi et al.[23] ,Manasa et al .[??], Rathod et al.[7], Gauraha and Rao-[24].</p> <p>(Keep the same format e.g. Kalian et al vs Kumar et al )</p> <p>Regarding References when using the reference number in brackets it is not necessary to include the year e.g.</p> <p>Mukesh et al. (2018)[21] for biological yield, Solomon and Wegary (2016)[12], Dhurai et al. (2014)[2] for harvest index, Kiran et al. (2023)[19] for plant height, Bagheri et al. (2011)[4] for panicle length, Kiani et al. (2012)[22]</p>	

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	<b>Reviewer's comment</b> The paragraphs Total tillers plant exhibited significant negative correlation with traits like no of unfilled ... in agreement with the findings of Dhurai <i>et al.</i> [2], Radha <i>et al.</i> [20].  The indirect effect of biological yield ... results are in the agreement with the finding of Selvi <i>et al.</i> [23] ,Manasa <i>et al</i> , Rathod <i>et al.</i> [7], Gauraha and Rao.[24] Have different line spacing.  Keep the same formats e.g.  panicle length ( $r_p = -0.290$ , $r_g = -0.522$ ). with space  harvest index ( $r_p = 0.382$ , $r_g = 0.333$ ), without space  Correlation coefficients are the index of the association between two variables, which is due to linkage, pleiotropies or due to any environmental components.  The traits plant height showed significant positive <del>correlated</del> correlation with panicle length...  total tillers per plant, number of filled grain, number of unfilled grain, 100 (space)seed weight were found positive on  Among all traits, biological yield showed a positive direct effect on seed yield followed by spikelet fertility, harvest index, panicle length, Number of filled grain per panicle, <u>and</u> Plant height. (Table 2.)  Watch punctuation mistakes e.g. Manasa <i>et al</i> , Rathod <i>et al.</i> [7], Gauraha and Rao.[24] . been reported by kalian <i>et al.</i> [13], Rashid <i>et al.</i> [14], Kumar <i>et al</i> [15]  Tables 1 and 2.  Indicate below the table what means *, ** and ***	<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)

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**PART 2:**

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

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