

Review Form 1.7

Journal Name:	International Journal of Environment and Climate Change
Manuscript Number:	Ms_IJECC_105734
Title of the Manuscript:	Studies on genetic variability, correlation analysis in Mithipagal (<i>Momordica charantia</i> var. <i>muricata</i>) genotypes
Type of the Article	Original 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:

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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"> 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. <p><u>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</u></p>	<p>The manuscript is important for scientific community. Mithipagal (<i>Momordica charantia</i> var <i>muricata</i>) is a wild kind of bitter gourd that is grown throughout Tamil Nadu, Kerala and Southern states of India. 20 genotypes recolected from several district of Tamil Nadu were evaluated for 16 traits in a Randomized Block Design with 2 reps, with spacing of 2x2 m apart. Variability and correlation analysis among genotypes were examined. The results, showed that yield per plant had high positive and high significant correlation with fruit weight, fruit girth, number of seeds per fruit, vine length and fruit length. High genotypic co-efficients of variation (GCV) were found for fruit yield per vine, fruit weight, TSS, fruit length, vine length, fruit girth, node of first female flower, number of fruits per vine, number of seeds per fruit, iron, protein content when genetic characteristics were taken into account, However low GCV was found for days to the first male and female flowering. Phenotypic variants were always greater than genotypic variances. In traits such as yield per vine, fruit weight, TSS, fruit length, vine length, fruit girth, number of fruits per vine, number of seeds per fruit, node of first male flower appearance, node of first female flower appearance, sex ratio, vitamin C, protein, iron content high heritability was found together with high genetic advance in percent of mean, indicating that these features are under additive gene control and hence selection for genetic improvement would be successful. Node of first male flower appearance showed low heritability combined with low genetic advance as a percentage of the mean indicating that non-additive gene effects were involved in the expression of this trait and hence selection for such a trait could not be beneficial. The knowledge of these statistical factors would be useful in identifying genotypes with greater yield potential that might be used in the improvement of mithipagal.</p> <p>The title of the article is suitable. The abstract of the article is comprehensive.</p> <p>Subsections and structure of the manuscript are appropriate but they must improved. I find many paragraphs confusing and recommend rewriting them.</p> <p>The manuscript is scientifically correct.</p>	
<p>Minor REVISION comments</p> <ol style="list-style-type: none"> 1. Is language/English quality of the article suitable for scholarly communications? 	<p>English quality of the article suitable for scholarly communications but must be improved.</p>	
<p>Optional/General comments</p>	<p>In Tamil Nadu, twenty genotypes of mithipagal were collected from Thanjavur, Dindugal, Virudhunagar, Trichy, Ramnad, Namakkal, Thiruvarur, Vellore, and Madurai districts. <u>A map indicating the locations would do the presentation more amenable.</u></p> <p>Heritability and genetic progress were estimated in accordance with Johnson et al. (1955), Please insert the formula</p> <p>and the genotypic and phenotypic coefficients of variability were determined in accordance with Burton and De-Vane (1953).</p>	

Review Form 1.7

	<p>Please insert the formula</p> <p>According to the formula provided by Al-Jibouriet al. (1958), the phenotypic and genotypic correlation co-efficient for fruit production were calculated.</p> <p>Please insert the formula</p> <p>Fruit weight is positively correlated with yield and this findings were was supported by Ram et al., (2006) in bitter gourd and Ritu Panday et al., (2006)...</p> <p>References</p> <p>Citations have different line spacing. Names of the Journals are in different fonts:</p> <p>... Indian Journal of Agricultural Science, 56 International Journal of Applied Sciences and Biotechnology, 2... ...PROGRESSIVE HORTICULTURE, 38(2), 224.</p>	
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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?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

Reviewer Details:

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