Estimation of Genetic Parameters for Rice Length and Shape of F2 Population

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Abstract	Rice length and shape are the important quality traits in rice that affect consumer acceptance and price. Rice length and shape can be improved through crosses followed by selection. Genetic parameters influence effective selection. The research objectives are to estimate genetic parameters for rice length and shape in the F2 population of Basmati Delta 9 x Koshihikari and Basmati Pakistan x Inpago Unsoed 1. F2 rice population from crosses of Basmati Delta 9 (extra-long, slender) x Koshihikari (short, round), Basmati Pakistan (extra-long, slender) x Inpago Unsoed 1 (medium, medium), and the parents are used for research material. The genotype is planted using an experimental design with no replication. Rice length and shape data were collected from each plant. The collected data is used to estimate the genetic parameters of rice length and shape. The results show that polygenes control rice length and shape. Transgressive segregation is obtained in the F2 population of Pakistan Basmati x Inpago Unsoed 1. The genetic diversity of rice length and shape is low, so reducing the selection intensity of these traits is suggested. The estimate of broad sense heritability and genetic gain of rice length and shape was high.
Publisher Name	Faculty of Agriculture University of Brawijaya in collaboration with PERAGI
Publish Date	2024-06-04
Publish Year	2024
Doi	DOI: 10.17503/agrivita.v46i2.4086
Citation	
Source	AGRIVITA Journal of Agricultural Science
Source Issue	Vol 46, No 2 (2024)
Source Page	355-366
Url	https://agrivita.ub.ac.id/index.php/agrivita/article/view/4086/1725
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