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Path analysis and correlation studies on corm yield in gladiolus cultivars

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ABSTRACT : An experiment was carried out in the experimental field of Krishi Vigyan Kendra, Mayurbhanj (North Central Plateau Agro Climatic Zone), Odisha during two consecutive post rainy seasons of 2009-10 and 2010-11. Path co-efficient analysis is simply a standardized partial regression co-efficient, which splits the correlation co-efficients into the measures of direct and indirect contributions of independent variables on dependent variables and, therefore, it is crucial for selection of genotypes. Considering corm yield as effect of 16 component characters as causal factors, correlation co-efficient were partitioned by using method of path analysis to find out direct and indirect effects of these characters towards the corm yield. Path analysis with corm yield as dependent variable indicated that characters like days to sprouting, number of leaves, days to initiation of floret, spike length, number of corms per plant, number of cormels per plant, corm diameter, corm weight had positive direct effect, maximum positive direct effect was shown by corm weight followed by corm diameter, number of corms per plant.

KEY WORDS : Gladiolus, Path analysis, Correlation, Corm

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