

Correlation and Path Coefficient Analysis in Cut Flower Anthurium

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ABSTRACT

Genotypic and phenotypic correlation coefficients and path coefficient analysis were carried out in the anthurium using 14 cultivars for 22 characters. The estimate of genotypic correlation coefficient was higher than the corresponding phenotypic correlation coefficient both for vegetative and floral characters. Among the vegetative characters, total number of leaves per plant had high positive direct effect on the number of suckers per plant. Path-coefficient analysis at genotypic level revealed that total number of leaves per plant and leaf fresh weight had a high positive direct effect on sucker production. Among the floral characters, spadix length, spadix diameter, peduncle thickness, peduncle length, spathe length and spathe width had a positive association with number of flowers per plant. In path analysis, peduncle thickness, weeks taken for vegetative growth, days to flower opening and spathe width had positive direct effects on flower yield per plant. Hence, a selection index comprising the characters like total number of leaves per plant, leaf fresh weight, juvenile phase, plant spread on sucker yield and characters like peduncle thickness, weeks taken for vegetative growth, days to flower opening and spathe width on flower yield can be considered highly dependable and reliable characters for selection to improve yield in anthurium. The trait number of flowers per plant was significantly and negatively correlated with number of suckers per plant.

Key words : Anthurium, Genotypic correlation coefficient, Path- coefficient analysis, Phenotypic correlation coefficient.