Character Association and Path Coefficient Analyses for Yield and Component Traits in Castor (*Ricinus communis* L.)

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ABSTRACT

Correlation and path coefficient analyses were carried out with fifty four genotypes of castor for yield and component traits. The character association studies revealed that total length of primary raceme, effective length of primary raceme, total length of secondary raceme, effective length of secondary raceme, tertiary branches $plant^{-1}$, nodes to tertiary raceme, stem length to tertiary raceme, effective length of tertiary raceme, 100 seed weight of primary raceme, 100 seed weight of secondary raceme, 100 seed weight of tertiary raceme, oil content, harvest index, seed yield plant $^{-1}$ at 120 days and seed yield $plant^{-1}$ upto 150 days showed significant positive association with seed yield $plant^{-1}$ upto 180 days at both genotypic and phenotypic levels. Path coefficient analysis revealed that harvest index, seed yield $plant^{-1}$ upto 150 days, tertiary branches $plant^{-1}$ and 100 seed weight of primary raceme exerted highest direct effect on seed yield $plant^{-1}$ upto 180 days.

Key words : Castor, Character Association, Path analysis