

# 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 52 genotypes of castor for yield and component traits. The character association studies revealed that seed yield plant<sup>-1</sup> upto 180 days had positive significant correlation with total length of primary raceme, effective length of primary raceme, secondary branches plant<sup>-1</sup>, total length of secondary raceme, effective length of secondary raceme, tertiary branches plant<sup>-1</sup>, 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 and seed yield plant<sup>-1</sup> at 120 days. Seed yield plant<sup>-1</sup> upto 150 days showed significant positive association with seed yield plant<sup>-1</sup> upto 180 days at both phenotypic and genotypic levels. The path analysis indicated that total length of primary raceme, secondary branches plant<sup>-1</sup>, effective length of secondary raceme, effective length of tertiary raceme, 100 seed weight of primary raceme, 100 seed weight of tertiary raceme, harvest index, seed yield plant<sup>-1</sup> at 120 days and seed yield plant<sup>-1</sup> upto 150 days exerted direct positive association with seed yield plant<sup>-1</sup> upto 180 days.

**Key words :** Castor, Character Association, Path analysis