

Genetic variability and association studies for seed yield and yield components in Niger [(*Guizotia abyssinica* (L. f.) Cass.)]

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ABSTRACT

The present experiment was carried out with 10 entries along with three checks during *kharif*, 2021 at Regional Agricultural Research Station, Chintapalle, Andhra Pradesh state to study variability and correlation for yield and its yield attributing traits in niger. The entries are received from PC Unit, JNKVV, Jabalpur. Each entry was sown in ten rows of 4 m length with 30 cm x 10 cm spacing in randomized block design. These entries were evaluated for seed yield and yield component characteristics viz., days to 50% flowering, days to maturity, plant height, number of primary branches, number of capitula and 1000 seed weight. Analysis of variance showed significant differences among the niger genotypes. Moderate to high phenotypic and genotypic coefficient of variation was recorded for traits like plant height, days to maturity, number of primary branches, and seed yield (kg/ha). High heritability combined with high genetic advance was observed for days to maturity, plant height and number of primary branches per plant and these characters showed highly significant correlation with seed yield (kg/ha), hence selection of genotypes based on these traits will be effective.

Keywords: *Correlation, Genetic advance, Heritability and Variability.*