Studies of Genetic Variability in Yield and Yield Contributing Traits of Foxtail Millet

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ABSTRACT

Foxtail millet (*Setaria italica* L.) is an important crop of the semi-arid tropics in India. The present study was conducted to evaluate the foxtail millet genotypes to assess the magnitude of variability and to understand the heritable component of variation present in the biometrical characters. Significant variation was recorded among the genotypes for various yield and yield contributing traits studied. High values for phenotypic co-efficient (PCV) and genotypic co-efficient (GCV) was recorded for grain weight followed by panicle weight and straw yield. High heritability and high genetic advance was recorded for panicle weight, panicle length, number of productive tillers per plants, grain weight and straw yield indicating that these characters were controlled by additive gene effects. Selection based on these characters would be effective for future foxtail millet crop improvement program. Moderate heritability coupled with moderate genetic advance (as percent of mean) was observed for chlorophyll content (SPAD). Threshing percentage showed low heritability as well as low genetic advance.

Key words : Foxtail millet, Genetic advance, Heritability, Variability.