Studies on genetic variability, heritability and genetic advance for yield and other traits in little millet (*Panicum sumatrense* L.) genotypes

M Muni Khyathi, D Ratna Babu, N Anuradha, G Rama Rao, D Ramesh
Department of Genetics and Plant Breeding, Agricultural college, Bapatla, A.P.

ABSTRACT

The present investigation was carried out to assess the nature and magnitude of genetic variability parameters of sixteen yield attributing traits in 35 little millet germplasm collections: The experiment was laid out in Randomized Complete Block Design at Agricultural college farm, Bapatla during *Kharif*, 2021 The analysis of variance showed highly significant differences among the genotypes for all the characters studied, indicating the presence of adequate variability. Further, coefficient of variation studies indicated that the estimates of PCV were higher than the corresponding GCV values for all the traits indicating the influence of environment on expression of these characters. High PCV and GCV were recorded for grain iron and manganese contents indicating the existence of high variability for these traits among the studied genotypes. High heritability, along with high expected genetic advance as percent of mean, was observed for days to 50% flowering, leaves per main tiller, grain iron, manganese and protein contents implying that the inheritance of these traits were probably controlled by additive gene effects predominantly. Hence, direct phenotypic selection will be rewarding with respect to improvement these traits.

Keywords: *Expected genetic advance as percent of mean, Genotypic coefficient of variation, Heritability, Phenotypic coefficient of variation.*