Genetic Variability Studies for grain yield and its attributes in Proso millet *(Panicum miliaceum* L.*)*

N Anuradha, T.S.S.K. Patro, Y Sandhya Rani , U Triveni and P Kranthi Priya
Agricultural Research Station, Acharya N. G. Ranga Agricultural University, Vizianagaram, A.P.

ABSTRACT

Evaluation of 20 proso millet breeding lines was attempted during *kharif*, 2021 at Agricultural Research Station, Vizianagaram to assess genetic variability, heritability and genetic advance for ten yield contributing traits. Number of productive tillers per plant and number of leaves per plant recorded high variability indicating much scope of improvement for these characters with simple selection. High heritability coupled with high GAM were recorded for number of productive tillers per plant, leaf length and number of leaves per plant indicating preponderance of additive gene action which is very much selection responsive. Narrow range of variations for PCV and GCV were observed for days to 50% flowering, days to maturity, indicating less environmental influence for these traits. They also recorded high heritability with low GAM indicating that these two traits may be governed by few genes with non additive gene action. Hence, selection for these traits may be attempted through heterosis breeding. VP008 and VP 033 were found to be promising for earliness and VP021 for higher grain yield.

Key words: *Heritability and genetic advance, Proso millet and Variability.*