

# **Genetic Variability Studies in Italian Millet (*Setaria italica* (L.) Beauv) Varieties under Rainfed conditions in Scarce Rainfall Zone of Andhra Pradesh**

**P Shanthi, C Radha Kumari, M Niveditha, Y Pavan Kumar Reddy and B Sahadeva Reddy**  
Agricultural Research Station (Dray Land Agriculture), DCMS Buildings, Kamalanagar,  
Ananthapuram – 515 001, Andhra Pradesh

## **ABSTRACT**

Six varieties of Italian Millet (*Setaria italica* (L.) Beauv) were evaluated at Agricultural Research Station, ANGRAU, Ananthapuram, Andhra Pradesh during *Kharif* 2014 and *Kharif* 2015. The present study was conducted to assess the magnitude of genetic variability, heritability in broadsense and genetic advance as per cent of mean. Complete randomized block design with three replications was used at each season. In general phenotypic coefficients of variation (PCV) estimates were higher than genotypic coefficients of variation (GCV) estimates for all the eight characters studied displaying the influence of environment effect on the studied characters. The combined results for heritability and genetic advance as per cent of mean showed that the high estimates were scored for panicle weight followed by panicle length indicating that these characters were under the control of additive genetic effects. In a combined study over the two years the variety SIA 3085 is identified with highest grain yield (891 kg/ha) with earliness (55 days to flowering and 85 days to maturity) followed by the variety Narasimharaya for grain yield (717 kg/ha) but it scored highest straw yields (2150 kg/ha) with late maturity (97 days to maturity).

Key words: *GCV, Heritability and Genetic advance, Italian Millet Varieties, PCV, Variability.*