

Assessment of variability, heritability and genetic advance for yield and nutritional traits in greengram [*Vigna radiata* (L.) Wilczek]

G Jagadeeswari, N Hari Satyanarayana, J Sateesh babu and V Roja

Department of Genetics and Plant Breeding, Acharya N G Ranga Agricultural University,
Agricultural College, Bapatla-522101, Andhra Pradesh, India

ABSTRACT

The present study was undertaken to assess the magnitude of genetic variability, heritability, and genetic advance for seed yield and its associated traits in 45 greengram genotypes during *rabi*, 2024-25 at Regional Agricultural Research Station, Lam, Guntur, Andhra Pradesh. The analysis of variance revealed significant differences among the genotypes for all characters studied, suggesting the presence of considerable genetic variation. High heritability coupled with high genetic advance was observed for seed yield per plant, iron content, zinc content, vitamin C content, pods per plant, and branches per plant, indicating the predominance of additive gene action and the scope for effective selection. These results emphasize the potential for genetic improvement through direct selection in greengram breeding programs.

Keywords: *Genetic Advance Heritability, Greengram, GCV and PCV*