

ASSESSMENT OF GENETIC DIVERSITY IN CHICKPEA (*CICER ARIETINUM* L.) GERMPLASM

Varsha Singh¹, Preeti Singh², Shiva Nath¹, Meenakshi Dheer³ and Sumer Singh Punia*⁴

¹Department of Genetics and Plant Breeding, N.D. Uni. of Agri. and Technology, Kumarganj, Faizabad- 224 229(U. P), India

²Department of Agricultural Science, Banaras Hindu Uni. Varanasi-221005(U.P.), India

³Division of Genetics, IARI, New Delhi

⁴Agricultural Research Station, Agriculture University, Kota-324001 (Raj)

Email: spunia82@gmail.com

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Abstract: Genetic diversity among 100 accessions of chickpea collected from different agro-ecological zones of India was assessed for several quantitative and qualitative traits. These accessions were grown in the augmented design with 5 intermittent checks viz., HK 94-134, KWR 108, GCP-105, Udai and Pant G-186 after every tenth row. Wide range of variability was observed for both qualitative and quantitative traits studied. All the chickpea genotypes were grouped into 11 discrete clusters with higher genetic diversity for different traits. Maximum 12 genotypes consisted by cluster II, IV, VII followed by cluster I, III and VI were having 11 genotypes. The highest intra-cluster distance was recorded for cluster II (23.214) followed by cluster VIII (16.218). The maximum inter-cluster distance was observed between cluster IV and XI (70.776) followed by cluster III and XI (58.599). The above result indicates that these genotypes having sufficient genetic diversity to generate segregants through crossing programme.

Keywords: Chickpea, Accessions, Cluster Distance, Augmented, Genetic Diversity

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*Corresponding Author