

Varietal identification of pigeonpea [*Cajanus cajan* L. Millsp] genotypes through electrophoresis

Ashish Kr. Pandey¹, R.P. Vyas¹, V.K. Mishra³, Ravish Kr. Singh² and A.K. Singh¹

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ABSTRACT : The present investigation in thirteen genotype of pigeonpea *i.e.* AMAR, KWR 2-7, SHEKHAR-3, KA 01-108, KSP-13, UPAS-120, KAWR-7, KSMR-105, PUSA-9, KA O9-01, T-21, KA01-94 and KSMR-88 for tris-soluble protein and water soluble protein profiling through SDS – PAGE. The protein banding patterns through SDS-PAGE and found that Rm value of protein bands differ in all the genotype for both water soluble and tris soluble protein. In soluble protein banding pattern 12-15 departure bands of Rm value (0.83-0.98) with only 2 common band of Rm value (0.83 and 0.78) in total 17 bands were found whereas in water soluble protein banding pattern, genotype have 8-12 departure band of Rm (0.16-0.952) with 4 common bands of Rm value 0.432,048,0.233 and 0.65 in total 16 bands. In UPGMA cluster analysis all the genotypes fall in six groups for both water and tris soluble proteins and protein banding pattern of tris soluble protein were found more distinct than water soluble proteins through SDS-PAGE. On the basis of results, it can be said for characterization and identification for pigeon pea genotypes electrophoretic profile of tris soluble protein through SDS-PAGE was resulted distinct banding pattern and much better than water soluble protein.

Key Words: Pigeonpea, SDS – PAGE, varietal identification, Genotype, Tris soluble.